## Department of Defense Fiscal Year (FY) 2022 Budget Estimates

May 2021



## **Missile Defense Agency**

Defense-Wide Justification Book Volume 2b of 2

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

UNCLASSIFIED
THIS PAGE INTENTIONALLY LEFT BLANK

Missile Defense Agency • Budget Estimates FY 2022 • Procurement

## **Table of Volumes**

Chemical and Biological Defense Program	Volume 1
Defense Contract Audit Agency	Volume 1
Defense Contract Management Agency	Volume 1
Defense Counterintelligence and Security Agency	Volume 1
DoD Human Resources Activity	
Defense Information Systems Agency	Volume 1
Defense Logistics Agency	
Defense Media Activity	
Defense POW MIA Accounting Agency	Volume 1
Defense Production Act Purchases	
Defense Security Cooperation Agency	Volume 1
Defense Threat Reduction Agency	
Department of Defense Education Activity	Volume 1
Office of the Secretary Of Defense	Volume 1
The Joint Staff	Volume 1
United States Special Operations Command	Volume 1

Missile Defense Agency • Budget Estimates FY 2022 • Procurement

Washington Headquarters ServicesV	olume
Missile Defense Agency	/olume :

Missile Defense Agency • Budget Estimates FY 2022 • Procurement

## **Volume 2b Table of Contents**

Introduction and Explanation of Contents	Volume 2b - v
Comptroller Exhibit P-1	Volume 2b - vi
Line Item Table of Contents (by Appropriation then Line Number)	Volume 2b - xiii
Line Item Table of Contents (Alphabetically by Line Item Title)	Volume 2b - xv
Exhibit P-40s	Volume 2b - 1



## **Introduction & Explanation of Contents**

The Department of Defense Fiscal Year (FY) 2022 Budget Estimates 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

- R-1 Comptroller Exhibit
- MDA FY 2022 Budget Estimate Overview
- MDA Appropriation Summary
- Acronyms
- RDT&E Exhibits in BA-03, BA-04, and BA-06

#### Volume 2b

- P-1 Comptroller Exhibit
- MDA Operations and Maintenance Exhibit
- MDA MILCON Exhibits
- MDA Procurement Exhibits

## **Footnotes**

#### FY 2020 Actuals

Includes Division A, Title IX and X of the Consolidated Appropriations Act, 2020 (P.L. 116-93), Division F, Title IV and V from the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) and the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136).

#### FY 2021 Enacted

Includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).

# Defense-Wide FY 2022 President's Budget Exhibit P-1 FY 2022 President's Budget Total Obligational Authority (Dollars in Thousands)

24 May 2021

Appropriation	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
Procurement, Defense-Wide	1,724,734	2,027,594	1,249,374
Total Defense-Wide	1,724,734	2,027,594	1,249,374

# Defense-Wide FY 2022 President's Budget Exhibit P-1 FY 2022 President's Budget Total Obligational Authority (Dollars in Thousands)

24 May 2021

Organization: Procurement, Defense-Wide	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
Missile Defense Agency, MDA	1,724,734	2,027,594	1,249,374
Total	1,724,734	2,027,594	1,249,374

# Defense-Wide FY 2022 President's Budget Exhibit P-1 FY 2022 President's Budget Total Obligational Authority (Dollars in Thousands)

24 May 2021

Appropriation: Procurement, Defense-Wide

Budget Activity	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
01. Major Equipment	1,724,734	2,027,594	1,249,374
Total Procurement, Defense-Wide	1,724,734	2,027,594	1,249,374

#### Defense-Wide FY 2022 President's Budget Exhibit P-1 FY 2022 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation: 0300D Procurement, Defense-Wide

Line		Ident	Ac	2020 ctual*	Enac	2021 ted**	Red	2022 quest	S e
No	Item Nomenclature	Code	Quantit	<del></del>	Quantity		Quantity		С -
: D2000000000000000000000000000000000000	et Activity 01: Major Equipment								
Majo	or Equipment, Missile Defense Agency								
29 T	PHAAD	В	39	407,203	39	578,335	18	251,543	U
	Ground Based Midcourse Less: Advance Procurement (PY)	A	69	(400,471) (-115,000)		(150,000)			U U
				285,471		150,000			
	Aegis BMD Less: Advance Procurement (PY)	В	32	(336,374)		(399,920) (-46,024)		(394,386) (-59,765)	U
				336,374		353,896		334,621	
A C C C	Aegis BMD Advance Procurement (CY) C (FY 2020 for FY 2021) (M) C (FY 2020 for FY 2022) (M) C (FY 2020 for FY 2023) (M) C (FY 2021 for FY 2022) (M) C (FY 2021 for FY 2023) (M)			96,995 (46,024) (29,920) (21,051)		44,901 (29,845) (15,056)		17,493	ט
C	C (FY 2022 for FY 2023) (M)							(17,493)	
33 E	BMDS AN/TPY-2 Radars	A		10,046		243,270		2,738	U
34 S	SM-3 IIAs	В	7	238,000	9	318,322	8	295,322	U
35 A	Arrow 3 Upper Tier Systems	A	1	55,000	1	77,000	1	62,000	U
36 S	Short Range Ballistic Missile Defense (SRBMD)	A	1	50,000	1	50,000	1	30,000	U
37 E	Defense of Guam Procurement	В						40,000	U
38 A	Aegis Ashore Phase III	В		26,495		34,629		25,866	U
39 I	Iron Dome	A	1	95,000	1	73,000	1	108,000	U

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 24, 2021 at 12:22:07
\*Includes Division A, Title IX and X of the Consolidated Appropriations Act, 2020 (P.L. 116-93), Division F, Title IV and V from the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) and the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136).
\*\* Includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).

24 May 2021

# Defense-Wide FY 2022 President's Budget Exhibit P-1 FY 2022 President's Budget Total Obligational Authority (Dollars in Thousands)

24 May 2021

Appropriation: 0300D Procurement, Defense-Wide

Line	Ident		2020 ual*	FY 2 Enact		FY 2 Requ		S e
No Item Nomenclature	Code	Quantity		Quantity	Cost	Quantity	Cost	
40 Aegis BMD Hardware and Software	А	36	124,150	49	104,241	14	81,791	U
Total Major Equipment		1	,724,734	2,	027,594	1,	249,374	M
Total Procurement, Defense-Wide		1	,724,734	2,	027,594	1,	249,374	*6



Missile Defense Agency • Budget Estimates FY 2022 • Procurement

## **Line Item Table of Contents (by Appropriation then Line Number)**

#### Appropriation 0300D: Procurement, Defense-Wide

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
29	01	17	MD07	THAAD	Volume 2b - 1
30	01	17	MD08	Ground Based Midcourse	Volume 2b - 23
31	01	17	MD09	AEGIS BMD	Volume 2b - 37
32	01	17	MD09	AEGIS BMD, Advance Procurement	Volume 2b - 59
33	01	17	MD11	BMDS Sensors	Volume 2b - 63
34	01	17	MD14	SM-3 Block IIA	
35	01	17	MD26	Arrow 3 Upper Tier System	Volume 2b - 97
36	01	17	MD34	Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))	Volume 2b - 101
37	01	17	MD65	Defense of Guam Procurement	Volume 2b - 105
38	01	17	MD73	Aegis Ashore Phase III	Volume 2b - 109
39	01	17	MD83	Iron Dome	Volume 2b - 119
40	01	17	MD90	Aegis BMD Hardware and Software	Volume 2b - 123



Missile Defense Agency • Budget Estimates FY 2022 • Procurement

## Line Item Table of Contents (Alphabetically by Line Item Title)

Line Item Title	Line Item Number	Line #	ВА	BSA Page
AEGIS BMD	MD09	31	01	17 Volume 2b - 37
AEGIS BMD, Advance Procurement	MD09	32	01	17 Volume 2b - 59
Aegis Ashore Phase III	MD73	38	01	17 Volume 2b - 109
Aegis BMD Hardware and Software	MD90	40	01	17 Volume 2b - 123
Arrow 3 Upper Tier System	MD26	35	01	17 Volume 2b - 97
BMDS Sensors	MD11	33	01	17 Volume 2b - 63
Defense of Guam Procurement	MD65	37	01	17 Volume 2b - 105
Ground Based Midcourse	MD08	30	01	17 Volume 2b - 23
Iron Dome	MD83	39	01	17 Volume 2b - 119
SM-3 Block IIA	MD14	34	01	17 Volume 2b - 93
Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))	MD34	36	01	17 Volume 2b - 101
THAAD	MD07	29	01	17Volume 2b - 1

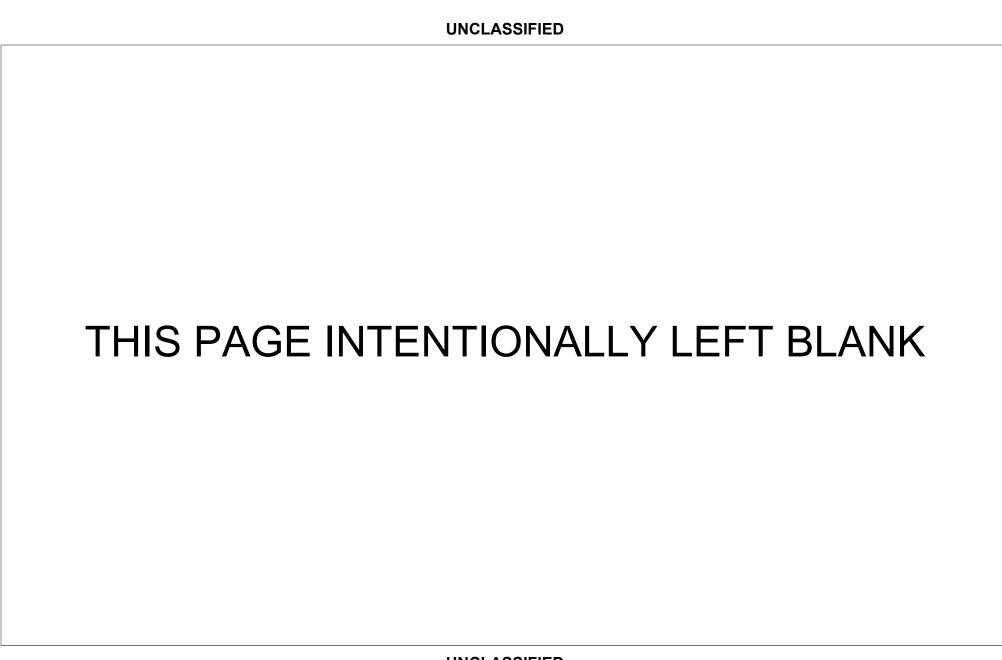


Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

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

ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: 0603881C, 0604876C

Other Related Program Elements: 0603881C, 0604876C

Line Item MDAP/MAIS Code: 362

Line Roll MDA / MIAIO GOGG. 502												
	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	495	39	39	18	-	18	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543	-	-	-	-	Continuing	Continuing
(The following	(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)									ĺ		
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	9.827	8.397	9.743	9.894	-	9.894	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (\$ in Millions)	12.736	10.441	14.829	13.975	-	13.975	-	-	-	-	Continuing	Continuing

#### Description:

Terminal High Altitude Area Defense (THAAD) is an element of the Terminal Defense Segment (TDS) of the Missile Defense System (MDS). THAAD enhances the TDS by deepening, complementing, and extending the MDS 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 MDS 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.

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED Page 1 of 21

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD07 / THAAD

Equipment, Missile Defense Agency ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: 0603881C. 0604876C

Other Related Program Elements: 0603881C, 0604876C

**Date: May 2021** 

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	THAAD	P-5a, P-21	В		495 / 6,304.297	39 / 407.203	39 / 578.335	18 / 251.543	- / -	18 / 251.543
P-40	Total Gross/Weapon System Cost				495 / 6,304.297	39 / 407.203	39 / 578.335	18 / 251.543	- 1 -	18 / 251.543

<sup>\*</sup>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 FY 2021 budget includes Congressional increases of \$76.325 million for the 8th THAAD Battery and \$30.108 million for 30 Heavy Expanded Mobility Tactical Trucks (HEMTT) and a decrease of \$23.494 million due to unit cost growth.

The decrease from FY 2021 to FY 2022 budget reflects a decrease in the THAAD Interceptor procurement quantity from 39 in FY 2021 to 18 in FY 2022, a lower requirement for the procurement of required THAAD Battery Ground Component modifications to meet the cyber threat, and a FY 2021 Congressional increase for the 8th THAAD Battery and 30 HEMTT.

The FY 2022 budget request includes 18 THAAD Interceptors, the Stockpile Reliability Program, Production and Training Support, Obsolescence mitigation efforts, and the procurement of required THAAD Battery Ground Component modifications to meet the cyber threat.

In FY 2022 MDA will continue a "synergy" lot buy approach to THAAD Interceptor purchases. 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 buys were not combined. Depending on the outcome of the synergy buy, THAAD plans to buy to budget such that potentially more interceptors or their enabling hardware items as required could be procured.

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

MDA's "synergy" buy approach to THAAD purchases of interceptors include the combination of US lots and FMS interceptors when possible.

The FY 2021 and FY2022 planned buy is currently being negotiated with the contract award planned in September 2021.

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.

"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".

LI MD07 - THAAD Missile Defense Agency Page 2 of 21

UNCLASSIFIED

P-1 Line #29

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:

THAAD

THAAD

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2020	FY 2021	<b>FY 2022 Base</b>	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	495	39	39	18	-	18
Gross/Weapon System Cost (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	6,304.297	407.203	578.335	251.543	-	251.543
(The following Resource Summary rows are for informat	ional purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	12.736	10.441	14.829	13.975	-	13.975

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

ID Code (A=Service Ready, B=Not Service Ready) : B

	P	rior Years	3		FY 2020			FY 2021		FY	2022 Bas	se	FY	2022 OC	0	FY	2022 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Hardware Cost				'	'					'	'		'			'	'	
Recurring Cost																		
8th THAAD Battery	-	-	-	-	-	-	76.325	1	76.325	-	-	-	-	-	-	-	-	-
HEMTT Trucks	-	-	-	-	-	-	1.004	30	30.108	-	-	-	-	-	-	-	-	-
Interceptor <sup>(†)</sup>	9.827	495	4,864.538	8.397	39	327.498	9.743	39	379.959	9.894	18	178.095	-	-	-	9.894	18	178.09
Launcher <sup>(†)</sup>	8.110	36	291.977	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	25.943	9	233.491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TFCC Tactical Station Group <sup>(†)</sup>	10.522	8	84.179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	5,474.185	-	-	327.498	-	-	486.392	-	-	178.095	-	-	-	-	-	178.09
Subtotal: Hardware Cost	-	-	5,474.185	-	-	327.498	-	-	486.392	-	-	178.095	-	-	-	-	-	178.09
Support Cost								·										
JEON	20.970	2	41.940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Obsolescence and Modifications	32.818	7	229.725	29.038	1	29.038	65.774	1	65.774	55.561	1	55.561	-	-	-	55.561	1	55.56
Production Support & Testing	57.987	7	405.910	41.614	1	41.614	18.612	1	18.612	15.002	1	15.002	-	-	-	15.002	1	15.00
Training	21.791	7	152.537	9.053	1	9.053	7.557	1	7.557	2.885	1	2.885	-	-	-	2.885	1	2.88
Subtotal: Support Cost	-	-	830.112	-	-	79.705	-	-	91.943	-	-	73.448	-	-	-	-	-	73.44
Gross/Weapon System Cost	12.736	495	6,304.297	10.441	39	407.203	14.829	39	578.335	13.975	18	251.543	-	-	-	13.975	18	251.54

Remarks:

	UNCLASSIFIED	
Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agend	су	<b>Date</b> : May 2021
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) : B	MDAP/MAIS Code	): :
"Procurement Quantity" above represents interceptors only, but the "Net Procurement Cost". Support Equipment captures miscel Leak Sensor System (TALSS), and Battery Support Center (BSC) that support C	llaneous items such as Terminal High Altitude Area Defense	
The FY 2021 budget includes Congressional increases of \$76.325 million for million due to unit cost growth.	or the 8th THAAD Battery and \$30.108 million for 30 Heavy E	expanded Mobility Tactical Trucks (HEMTT) and a decrease of \$23.494
The decrease in the Interceptor line above from FY 2021 to FY 2022 reflect	s a decrease in the THAAD Interceptor procurement quantity	from 39 in FY 2021 to 18 in FY 2022.
The decrease in the Obsolescence and Modifications line above from FY 20 the cyber threat.	021 to FY 2022 reflects a lower requirement for the procurem	nent of required THAAD Battery Ground Component modifications to meet
The decrease in the Training line above from FY 2021 to FY 2022 reflects the	he completion of the THAAD Skills Trainer (TST).	
Obsolescence encompasses mitigation activities that protect the system de schedule. Examples of mitigation activities include component replacement production lots.		·
<sup>(†)</sup> indicates the presence of a P-5a		

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED Page 4 of 21

P-1 Line #29 Volume 2b - 4

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD07 / THAAD

Date: May 2021

Item Number / Title [DODIC]:

THAAD

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Interceptor - Lot 1 <sup>(†)</sup>		2010	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2011	Jul 2012	26	14.480	Υ		Oct 2009
Interceptor - Lot 2 <sup>(†)</sup>		2011	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2011	Jul 2013	22	12.100	N		Oct 2009
Interceptor - Lot 4 <sup>(†)</sup>		2012	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Aug 2012	Jun 2015	46	11.022	N		Aug 2011
Interceptor - Lot 5 <sup>(†)</sup>		2013	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Sep 2013	Jul 2017	34	11.022	N		Aug 2011
Interceptor - Lot 6 <sup>(†)</sup>		2014	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2013	Mar 2018	27	11.022	N		Jun 2013
Interceptor - Lot 7 <sup>(†)</sup>		2015	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2015	Aug 2018	38	10.100	N		Mar 2014
Interceptor - Lot 8 <sup>(†)</sup>		2016	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2015	Feb 2019	36	10.100	N		Apr 2015
Interceptor - Lot 9 <sup>(†)</sup>		2017	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2017	Jan 2020	47	9.185	N		May 2016
Interceptor - Lot 10 <sup>(†)</sup>		2018	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2017	Oct 2020	109	9.169	N		Dec 2016
Interceptor - Lot 11 <sup>(†)</sup>		2019	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Apr 2019	Feb 2022	110	8.410	N		May 2018
Launcher - Lot 1 <sup>(†)</sup>		2010	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	May 2011	Apr 2013	6	9.170	Υ		Oct 2009
Launcher - Lot 2 <sup>(†)</sup>		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	May 2011	Oct 2013	6	9.130	Υ		Oct 2009
Launcher - Lot 3 <sup>(†)</sup>		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	May 2014	6	9.130	Υ		Aug 2011
Launcher - Lot 4 <sup>(†)</sup>		2012	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Nov 2014	6	7.490	Υ		Aug 2011
Launcher - Lot 6 <sup>(†)</sup>		2014	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Aug 2014	Mar 2016	12	9.050	Υ		Jun 2013
TFCC Tactical Station Group - Lot $2^{(\dagger)}$		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 $3^{(\dagger)}$		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Aug 2014	2	10.100	Υ		Aug 2011
TFCC Tactical Station Group - Lot $4^{(\dagger)}$		2012	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Oct 2014	2	9.260	Y		Aug 2011

<sup>(†)</sup> indicates the presence of a P-21

#### Remarks:

Lot 3 Interceptors were removed due to a Congressional Mark in FY 2011. Lot numbers relate to groupings in fiscal years and no Launcher or Tactical Fire Control and Communication (TFCC) Tactical Station Groups (TSGs) were scheduled for procurement in FY 2013, therefore Lot 5 is an interceptor only Lot. Delivery of Battery 3 completed in FY 2014. Delivery of Battery 5 completed in FY 2015. Delivery of Battery 6 completed in FY 2016. Delivery of Battery 7 completed in FY 2017. Concurrent with the Lot 4, 5, and 6 (FY 2012-FY 2014) U.S. procurements, MDA THAAD is executing a Foreign Military Sales (FMS) Case for two (2) Batteries and 192 Interceptors. The magnitude of the USG and FMS combined buy reduced the unit price for those Lots, and an overlap in period of performance with FMS interceptors also benefited the unit price for Lots 7 and 8 (FY 2015 and FY 2016).

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 5 of 21

P-1 Line #29

Exhibit F	P-21, Pr	oducti	on Sc	hedu	le: P	B 202	2 Mis	sile D	etens	se Age	ency											Date	e: Ma	y 202	1				
<b>Appropr</b> i 0300D / 0		Budge	t Acti	vity /	Bud	get S	ub A	ctivity	<b>'</b> :		<b>Line</b> 07 / T			ber /	Title:							Item THA		nber /	Title	[DOI	DIC]:		
		lements in Each)								Fiscal Y	ear 2011											Fiscal Y	ear 2012						В
	(6////6/	Lucin	ACCEPT					T	_	1 10001 1	cu: 2011		Calendar	Year 201	11							1 10001 1		ndar Yea	r 2012				A L
м			PRIOR	BAL				+					Jaionaai																Α
O F C R O # FY	SERVICE	PROC QTY	TO 1 OCT 2010	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	N U	U J	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	N U J	U U	A U G	S E P	N C E
Interceptor - Lo	ot 1																												
1 2010	MDA	26	0	26						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
Interceptor - Le	ot 2									<u>'</u>	<u>'</u>																		
2 2011	MDA	22	0	22						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	] :
Interceptor - Lo	ot 4									•																	·		
3 2012	MDA	46	0	46																							Α -	-	
Interceptor - Lo	ot 5																												
4 2013	MDA	34	0	34																									:
Interceptor - Lo	ot 6																												
5 2014	MDA	27	0	27																									:
Interceptor - Le	ot 7																												
6 2015	MDA	38	0	38																									:
Interceptor - Lo																													
6 2016	MDA	36	0	36		_																							:
Interceptor - Lo	ot 9																												
7 2017	MDA	47	0	47																									
Interceptor - Lo																													
8 2018	MDA	109	0	109																									10
Interceptor - Lo																													
9 2019	MDA	110	0	110																									1
Launcher - Lot	t 1																												
10 2010	MDA	6	0	6								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Launcher - Lot																													
11 2011	MDA	6	0	6								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Launcher - Lot	t 3																												
12 2011	MDA	6	0	6																						A -	-	-	
Launcher - Lot																													
13 2012	MDA	6	0	6																					_	A -	-	-	
Launcher - Lot																													
14 2014	MDA	12	0	12																									
TFCC Tactical		up - Lot 2																											
15 2011		4	0	4						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TFCC Tactical	Station Grou	up - Lot 3							_								,										,		
					0	N O	D E	J A	F	M A	A P	M A	Ŋ	Ŋ	A U	S E	0	N O	D E	J A	F E	M A	A P	M A	Ŋ	Ŋ	A U	S E	
					Т	V	С	N	В	R	R	Υ	N	L	G	P	Т	V	С	N	В	R	R	Y	N	L	G	Р	

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 6 of 21

P-1 Line #29

E	khi	bit	P-21, P	rodı	ıcti	on Sc	hedu	le: Pl	3 202	2 Mis	sile D	efens	e Ag	ency											Date	e: Ma	y 202	1				
-	-	-	riation 01 / 17	Bu	dge	t Acti	vity /	Bud	get S	ub Ad	tivity	<b>':</b>		Line 007 / T		-	ber /	Title:							Item THA		nber /	Title	[DOD	)IC]:		
				Eleme s in Ea			,						Fiscal \	/ear 2011											Fiscal Y	ear 2012						В
						ACCEPT									(	Calendar	Year 20	11								Cale	ndar Year	2012				Ĺ
0 0 0	M F R	FY	SERVIC		OC TY	PRIOR TO 1 OCT 2010	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	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	A N C E
	16	2011	MDA		2	0	2																-	-					A -	-	-	$\vdash$
TF	CC.	Tactica	al Station Gr	oup - L	ot 4			<u> </u>																								
	17	2012	MDA		2	0	2																						Α -	-	-	
							,	O C T	N O V	D E C	J A N	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	

Exhibit P	-21, Pro	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	etens	se Age	ency											Date	e: ivia	y 202	I				
<b>Appropri</b> a 0300D / 0		Budge	t Acti	vity /	Budg	jet S	ub A	ctivity	<b>':</b>		<b>Line</b> 07 / T			ber /	Title:							Item THA		nber /	Title	[DOI	OIC]:		
		lements in Each)					,			Fiscal Y	ear 2013											Fiscal Y	ear 2014						В
			ACCEPT									C	alendar	Year 201	13								Caler	ndar Yea	2014				A L
O F			PRIOR TO 1	BAL DUE	o	N.	_	١.	_					Ι.		_	^	N.	_	. [							•		A
CR	SERVICE	PROC QTY	OCT 2012	AS OF 1 OCT	C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	U	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	N U J	U	A U G	S E P	N C E
Interceptor - Lo	ot 1					·	·						·									·				<u>'</u>			
1 2010	MDA	26	1	25	-	-	-	-	-	3	6	6	7	3															
Interceptor - Lo	ot 2					·	·						·																
2 2011	MDA	22	0	22	-	-	-	-	-	-	-	-	-	4	4	4	3	3	3	-	-	-	1						
Interceptor - Lo	ot 4																												
3 2012	MDA	46	0	46	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-	-	-	-	-	-	-	-	-	-	- 1	4
Interceptor - Lo	ot 5																												
4 2013	MDA	34	0	34											_	Α -	-	-	-	-	-	-	-	-	-	-	-	-	3
Interceptor - Lo	ot 6																												
5 2014	MDA	27	0	27															Α -	-	-	-	-	-	-	-	-	-	2
Interceptor - Lo	ot 7																												
6 2015	MDA	38	0	38																									3
Interceptor - Lo																													
6 2016	MDA	36	0	36																									3
Interceptor - Lo	ot 9																												
7 2017	MDA	47	0	47																									4
Interceptor - Lo	ot 10																												
8 2018	MDA	109	0	109																									10
Interceptor - Lo	ot 11																												
9 2019	MDA	110	0	110																									11
Launcher - Lot	1																												
10 2010	MDA	6	0	6	-	-	-	-	-	-	1	2	-	-	3														
Launcher - Lot	2			•			•		•																				
11 2011	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1							
Launcher - Lot	3																												
12 2011	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	
Launcher - Lot	4						•													·									
13 2012	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Launcher - Lot	6																, , , , , , , , , , , , , , , , , , ,											·	
14 2014	MDA	12	0	12																							A -	-	1
TFCC Tactical	Station Grou	ıp - Lot 2		<u>'</u>																									
15 2011	MDA	4	0	4	-	-	-	-	-	-	-	1	1	-	-	- 1	-	-	2										
TFCC Tactical	Station Grou	ıp - Lot 3					,		,																				
					О	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Α	М	J	J	Α	s	
					C T	O V	E	A N	E B	A R	P R	A Y	U	U	U	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U	U G	E P	
					_ '	v	U	N	В	K	K	Y	N	L	G		1	V	U	N	В	K	K	Y	N	L	G	Ρ	

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED Page 8 of 21

P-1 Line #29

E	xh	ibit l	P-21, F	roc	ducti	on Sc	hedul	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
			riation 01 / 17		udge	t Acti	vity /	Budç	get S	ub Ac	tivity	:		<b>Line</b> 07 / 1			ber /	Title:							<b>Item</b> THA		nber /	Title	[DOE	IC]:		
					nents Each)								Fiscal Y	ear 2013											Fiscal Y	ear 2014						В
						ACCEPT									C	alendar	Year 201	3								Calen	dar Year	2014				Ĺ
o C	M F R	FY	SERVIC		PROC QTY	PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	A U G	S E P	A N C E
	16	2011	MDA		2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
TF	FCC	Tactica	al Station G	roup -	- Lot 4																											
	17	2012	MDA		2	0	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 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	A U G	S E P	

Exhibit P	P-21, Pro	oducti	on Sc	hedu	le: PE	3 202	22 Mis	ssile L	Deten:	se Ag	ency											Date	e: ivia	y 202	1				
<b>Appropri</b> 0300D / 0		Budge	t Acti	vity /	Budg	jet S	ub A	ctivit	y:	- 1	<b>1 Line</b> 007 <i>I</i> 7			ber /	Title	•						Item THA		nber /	Title	[DOI	DIC]:		
		lements in Each)						,		Fiscal '	Year 2015	5										Fiscal Y	ear 2016						В
	,		ACCEPT										Calendar	Year 20	15		l.						Cale	ndar Yea	r 2016				A L
O F			PRIOR TO 1	BAL DUE	0			J		T				J			_			. 1	F	М			J	J		s	A N
C R O # FY	SERVICE	PROC QTY	OCT 2014	AS OF 1 OCT	C	N O V	D E C	A N	F E B	M A R	P R	M A Y	N U	U L	U G	S E P	O C T	N O V	D E C	J A N	E B	A R	A P R	M A Y	N N	U	A U G	E P	C
Interceptor - Lo	ot 1	'				,											,												
1 2010	MDA	26	26	0																									
Interceptor - Lo	ot 2																												
2 2011	MDA	22	22	0																									
Interceptor - Lo	ot 4																												
3 2012	MDA	46	0	46	-	-	-	-	-	-	-	-	3	-	-	-	-	2	7	-	-	-	-	-	12	-	-	-	2
Interceptor - Lo	ot 5									-																			
4 2013	MDA	34	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	:
Interceptor - Lo	ot 6																												
5 2014	MDA	27	0	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Interceptor - Lo	ot 7																												
6 2015	MDA	38	0	38															A -	-	-	-	-	-	-	-	-	-	3
Interceptor - Lo																													
6 2016	MDA	36	0	36															Α -	-	-	-	-	-	-	-	-	-	3
Interceptor - Lo	ot 9																												
7 2017	MDA	47	0	47																									4
Interceptor - Lo																													
8 2018	MDA	109	0	109																									10
Interceptor - Lo	ot 11																												
9 2019	MDA	110	0	110																									11
Launcher - Lot	t 1																												
10 2010	MDA	6	6	0																									
Launcher - Lot																													
11 2011	MDA	6	6	0																									
Launcher - Lot																													
12 2011	MDA	6	5	1	1																								
Launcher - Lot																													
13 2012		6	0	6	-	1 1	1	1	1	1 1	1																		
Launcher - Lot																		,											
14 2014		12	0	12	-	-	-	-	-	<u> </u>	-	-	-	-	<u> </u>	-	-	-	-	-	-	2	2	1	1	1	2	1	<u> </u>
TFCC Tactical		<del>i                                      </del>																											
15 2011	l	4	4	0																									<u> </u>
TFCC Tactical	Station Grou	ıp - Lot 3																											
					C	N O	D E	J A	F E	M A	A P	M A	U J	J U	A U	S	O C	N O	D E	J A	F E	M A	A P	M A	n n	J	A U	S E	
					T	V	С	N	В	R	R	Υ	N	L	G	P	Т	l v	С	N	В	R	R	Y	N	L	G	P	1

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 10 of 21

P-1 Line #29

Apr								Z 1V113	Sile D	erens	e Age	ency											Date	e: Ma	y 202	1				
		riation / 01 / 17	Budge	et Acti	vity /	Budg	jet Sı	ub Ac	tivity	<b>'</b>		<b>Line</b> 07 / T			ber /	Title:							Item THA	Num AD	nber /	Title	[DOI	OIC]:		
			lements in Each)								Fiscal Y	ear 2015											Fiscal Y	ear 2016						
				ACCEPT									С	alendar	Year 201	5								Calen	dar Year	2016				_
O F	:	SERVICE	PROC QTY	PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	
16	6 2011	MDA	2	2	0						l												ļ							
TFC	C Tactica	al Station Grou	ip - Lot 4																											
17	7 2012	MDA	2	0	2	1	1																							Т
•						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J 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	

Exhibit P	2-21, Pr	oducti	on Sc	hedu	le: Pl	3 202	22 IVI	IISSI	ie De	erens	e Age	ency											Date	e: IVIa	y 202	1				
<b>Appropri</b> 0300D / 0		Budge	t Acti	vity /	Bud	get S	Sub A	Acti	ivity:				Item HAAI		ber	/ Title	:						Iten TH/		nber /	Title	[DOI	DIC]:		
		lements in Each)									Fiscal Y	ear 2017											Fiscal \	ear 2018	3					В
			ACCEPT										C	alendar	Year 2	017								Cale	ndar Yea	r 2018				L
M	ACCEPT								J A N	F E B	M A R	A P R	M A Y	JUN	J U	A U G	S E P	O C T	N O V	D E C	JAN	F E B	M A R	A P R	M A Y	J U N	JUL	A U G	S E P	N C E
Interceptor - Lo		<b></b>	2010	1.001		<u> </u>			.,				•	.,			<u> </u>	<u> </u>			.,				<u> </u>					
1 2010		26	26	0		_																								
Interceptor - Lo																														
2 2011		22	22	0																										
Interceptor - Lo																														
3 2012		46	24	22	_	Τ.	T	- T	_ [		_	2	3	9		8	_													
Interceptor - Lo												_				<u> </u>														
4 2013		34	0	34	_	Τ.		-	_ [		l -	_	_	_	T	4	3 7	T .		4	_	7	3	1						1
Interceptor - Lo																	1 .	1	•			<u> </u>								
5 2014		27	0	27		Τ.		-	_ [	-	l -	_	_	_	Τ.	Τ.	Τ -	Ι.	Τ.	_	_	_	8	12	6	1	I			
Interceptor - Lo						1												1								<u> </u>				
6 2015		38	0	38	_	Τ.		-			_	_	_	_	Τ.	Τ.	Τ -	-	Τ -	_	_	_	_	T -	Τ.	_	_	10	6	
Interceptor - Lo	l																-													
6 2016		36	0	36	_	-		-	- 1		_	_	_	_	Τ -	Τ.	Τ -	-	Τ -	_	_	_	_	T -	Τ.	_	_	_	_	
Interceptor - Lo																	_													
7 2017		47	0	47							Α -	_	_	_	Τ.	Τ -	Τ.	-	Τ -	_	_	_	_	_	Τ.	_	Τ -	Ι -	_	
Interceptor - Lo			-															_												
8 2018		109	0	109																Α -	-	-	-	-	_	-	-	_	_	10
Interceptor - Lo			-																											H
9 2019		110	0	110																										1
Launcher - Lot																														H
10 2010		6	6	0																										
Launcher - Lot																														
11 2011		6	6	0																										
Launcher - Lot																														
12 2011		6	6	0																										
Launcher - Lot																														
13 2012		6	6	0																										
Launcher - Lot																														
14 2014		12	10	2	1	T	1																							
TFCC Tactical			10				-																							
15 2011		4	4	0																										
TFCC Tactical	l																													_
- Tacilcal	Glation Glot	ib , roi 9			0	N	D	,	J	F	м	Α	М	J	J	A	s	0	N	D	J	F	М	Α	м	J	J	Α	s	
					С	0	E	:	A	E	Α	P	Α	U	U	U	E	С	0	E	A	E	Α	P	Α	U	U	U	E	
					Т	l v	С	:	N	В	R	R	Υ	N	L	G	P	Т	V	С	N	В	R	R	Y	N	L	G	Р	

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 12 of 21

P-1 Line #29

														UN	ICLA	1001	LIEL	,													
E	xhi	bit F	P-21, Pr	oduct	ion Sc	hedu	le: Pi	3 202	2 Mis	sile D	efens	e Ag	ency											Date	e: Ma	y 202	.1				
		•	iation / 01 / 17	Budg	et Acti	vity /	Budg	get S	ub Ad	ctivity	<b>'</b> :		1 <b>Line</b> 007 / 1			ber /	Title:							Item THA		iber /	Title	[DOI	OIC]:		
				lements in Each)								Fiscal	Year 2017											Fiscal Y	ear 2018						В
					ACCEPT									(	Calendar	Year 20	17								Caler	ndar Yeaı	r 2018				L
0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	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	A U G	S E P	N C E
	16	2011	MDA	2	2	0																									
TF	CC	Tactica	Station Grou	up - Lot 4	,																										
	17	2012	MDA	2	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	

Exhibit P	2-21, Pr	oducti	on Sc	hedu	ie: Pi	3 202	Z IVIIS	ssile D	erens															y 202					
<b>Appropri</b> 0300D / 0		Budge	t Acti	vity /	Budo	get S	ub A	ctivity	<b>':</b>		<b>Line</b> 07 / T			ber /	Title:							Item THA		nber /	Title	[DO[	DIC]:		
		lements in Each)								Fiscal Y	ear 2019											Fiscal Y	ear 2020						В
			ACCEPT									C	alendar	Year 201	19								Caler	ıdar Yeaı	2020				L
0 F C R O # FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	J U	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	JUL	A U G	S E P	N C E
Interceptor - Lo									1		]					]													
1 2010		26	26	0		_																							
Interceptor - Lo																													
2 2011		22	22	0		_																							
Interceptor - Lo																													
3 2012		46	46	0																									
Interceptor - Lo																													
4 2013		34	34	0																									
Interceptor - Lo						-																							
5 2014	MDA	27	27	0		_																							
Interceptor - Lo																													
6 2015	MDA	38	16	22	-	4	10	) -	8																				
Interceptor - Lo	ot 8							1																					
6 2016	MDA	36	0	36	-	-	-	-	3	6	3	3	4	5	2	5	1	4											
Interceptor - Lo	ot 9	1				_																							
7 2017	MDA	47	0	47	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	8	8	8	8	5	-	-	-	-	
Interceptor - Lo	ot 10	1				_																							
8 2018	MDA	109	0	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Interceptor - Lo	ot 11																												
9 2019	MDA	110	0	110							Α -	-	-	-	-	-	-	- 1	-	-	-	-	-	-	-	-	-	-	1
Launcher - Lot	:1																												
10 2010	MDA	6	6	0																									
Launcher - Lot	2																												
11 2011	MDA	6	6	0																									
Launcher - Lot				<u> </u>																									
12 2011	MDA	6	6	0																									
Launcher - Lot	4																												
13 2012	MDA	6	6	0																									
Launcher - Lot	6																												
14 2014	MDA	12	12	0																									
TFCC Tactical	Station Grou	up - Lot 2																											
15 2011	MDA	4	4	0																									
TFCC Tactical	Station Grou	up - Lot 3																											
					0	N O	D E	J A N	F E	M A	A P	M A	Ŋ	Ŋ	A U	S E	0	N O	D E	J A	F E	M A	A P	M A Y	Ŋ	J	A U	S E	
					T	V	С	N	В	R	R	Υ	N	L	G	P	Т	V	С	N	В	R	R	Y	N	L	G	P	

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 14 of 21

P-1 Line #29

													Oiv		1001		,													
<b>c</b> hi	ibit	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Dat	e: Ma	y 202	21				
-	•		Budg	et Acti	vity /	Budç	get S	ub Ad	ctivity	:					ber /	Title:									nber	/ Title	[DOI]	OIC]:		
											Fiscal Y	ear 2019											Fiscal	Year 2020	)					В
													(	Calendar	Year 201	19								Cale	ndar Yea	r 2020				] ;
M F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J J	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	A N C
16	2011	MDA	2	2	0			'									,	,					·							
СС	Tactic	al Station Grou	up - Lot 4																											
17	2012	MDA	2	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	N U	T U	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	
	M F R # 16 CC	M F R FY 16 2011	Description   Cost   Cost	propriation / Budgroup	Cost Elements (Units in Each)	Description   Budget Activity	Cost Elements (Units in Each)	Cost Elements	Description   Budget Activity   Budget Sub	Description   Budget Activity   Budget Sub	Cost Elements	P-1   MC   P-2   P-3   P-3	MD07 / T   Cost Elements	Content   Cont	Content   Cont	Content   Cont	Content   Cont	P-1 Line Item Number / Title:   MD07 / THAAD   Total   Number   Number	Cost Elements (Units in Each)  ACCEPT PRIOR TO 1 DUE OCT AS OF C FIFT SERVICE OT 16 2011 MDA DE COST To 1 DUE OCT Tactical Station Group - Lot 4  TO 2012 MDA DE COST Elements (Units in Each)  ACCEPT PRIOR TO 1 DUE O N D D D D D D D D D D D D D D D D D D	Cost Elements (Units in Each)  ACCEPT PRIOR TO 1 DUE TO 1 DUE TO 2011 MDA TO 1 DUE TO 2011 MDA TO 1 DUE TO 2011 MDA TO 1 DUE TO 2012 MDA TO 1 DUE T	Cost Elements (Units in Each)    Page	Contact   Cont	Cost Elements (Units in Each)    Mage	Cost Elements	Cost Elements (Units in Each)    Part   Production Schedule: PB 2022 Missile Defense Agency   P-1 Line Item Number / Title:   MD07 / THAAD   THAAD	Chibit P-21, Production Schedule: PB 2022 Missile Defense Agency   Date: May 2022	Cost Elements (Units in Each)  R FY SERVICE QTY 2018 10CT AS OF C OR A SOF C	Cost Elements (Units in Each)  R Fy SERVICE QTY 2018 ACT AS OF C O E A E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A E A P A U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U U U U U U U U U U U U	Cost Elements (Units in Each)  ACCEPT PRIOR TO T	Cote Elements (Units in Each)  ACCEPT PRIOR TO 1 DUE PROC OCT AS OF C O E A E A P A P A U U U E SERVICE OTY 2018 10CT T V C N B R R V N L G P T V C N B R R V N L G P T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G P T T V C N B R R V N L G R T T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T V C N T T T T V C N T T T T T V C N T T T T V C N T T T T V C N T T T T V C N T T T T V C N T T T T V C N T T T V C N T T T T T V C N T T T T T T T T T T T T T T T T T T

	P-21, Pro	oaucti	on Sc	neau	ie: PB	202	Z IVIIS	sile D	erens	e Age	ency											Date	: IVIa	y 202	1	_			
<b>Appropri</b> 0300D / 0		Budge	t Acti	vity /	Budg	et Sı	ıb Ac	tivity	<b>'</b>		<b>Line</b> 07 / T			ber /	Title:							Item THA		nber /	Title	[DOI	DIC]:		
		lements in Each)					,			Fiscal Y	ear 2021											Fiscal Y	ear 2022						В
			ACCEPT									(	Calendar	Year 202	21			-					Cale	ndar Yea	r 2022				ĺ
O F			PRIOR TO 1	BAL DUE	0	N	n	J	F	м	_	М	J	J	Δ	٩	0	N	n	J	F	М	Α	м	J		Δ	•	A N
C R D # FY	SERVICE	PROC QTY	OCT 2020	AS OF 1 OCT	C T	o V	D E C	A N	F E B	A R	A P R	A Y	Ü	Ŭ	U G	S E P	O C T	N O V	D E C	A N	Е В	A R	P R	A Y	Ü	Ŭ	A U G	S E P	C
Interceptor - Lo	ot 1							·				·											·				·		
1 2010	MDA	26	26	0																									
nterceptor - Lo	ot 2																												
2 2011	MDA	22	22	0																									
nterceptor - Lo	ot 4																												
3 2012	MDA	46	46	0																									
nterceptor - Lo	ot 5																												
4 2013	MDA	34	34	0																									
Interceptor - Lo																													
5 2014	MDA	27	27	0																									
nterceptor - Lo	ot 7																												
6 2015	MDA	38	38	0																									
Interceptor - Lo																													
6 2016	MDA	36	36	0																									
Interceptor - Lo	ot 9																												
7 2017	MDA	47	37	10	10																								
nterceptor - Lo	ot 10																												
8 2018	MDA	109	0	109	2	10	8	5	6	8	8	9	9	8	9	9	10	8											
Interceptor - Lo																													
9 2019	MDA	110	0	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	
Launcher - Lot	1																												
10 2010	MDA	6	6	0																									
Launcher - Lot																													
11 2011	MDA	6	6	0																									
Launcher - Lot	3																												
12 2011	MDA	6	6	0																									
Launcher - Lot	4																												
13 2012		6	6	0																									
Launcher - Lot																													
14 2014	MDA	12	12	0																									
TFCC Tactical		p - Lot 2																											
15 2011	MDA	4	4	0																									
TFCC Tactical	Station Grou	p - Lot 3																											
<u> </u>					0	N	D	J	F	М	A	М	J	J	A	S	0	N	D	J	F	М	A	М	J	J	A	S	
					C T	0 V	E	A N	E B	A R	P R	A Y	U N	U L	U	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 16 of 21

P-1 Line #29

														UI	ICLA	1001	FIEL	,													
Ε	xh	ibit F	P-21, Pr	oduct	ion Sc	hedu	le: Pi	3 202	2 Mis	sile D	efens	e Ag	ency											Date	e: Ma	y 202	:1				
		•	<b>iation</b> / 01 / 17	Budg	et Acti	vity /	Budg	get S	ub Ad	ctivity	<b>'</b> :		<b>1 Line</b> 007 / 7			ber /	Title							Iten TH/		nber /	Title	[DO]	DIC]:		
				Elements in Each)								Fiscal	Year 2021											Fiscal Y	ear 2022	!					В
	1				ACCEPT									(	Calendar	Year 20	21								Caler	ndar Yeaı	r 2022				L
С	M F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	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	N C E
	16	2011	MDA	2	. 2	0												,	,											,	
Т	FCC	Tactica	Station Gro	up - Lot 4																											
	17	2012	MDA	2	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	JUN	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	

Exhibit F	P-21, Pro	oducti	on Sc	hedul	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
<b>Appropr</b> i 0300D / 0		Budge	t Acti	vity /	Budg	jet Sı	ıb Ad	ctivity	:		<b>Line</b> 07 / 1			ber /	Title:							Item THA		nber /	Title	[DOI	DIC]:		
		lements in Each)								Fiscal Y	ear 2023											Fiscal Y	ear 2024						В
	(0////0/	Lucin	ACCEPT				_			1100011			Calendar	Year 202	23							1100011		ndar Year	2024				A
O F			PRIOR	BAL	_			_	_								_										_	_	Ā
D F C R FY	SERVICE	PROC QTY	TO 1 OCT 2022	AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	N U	n n	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	U L	A U G	S E P	N C E
Interceptor - Lo	ot 1																												
1 2010	MDA	26	26	0																									
Interceptor - Lo	ot 2																												
2 2011	MDA	22	22	0																									
nterceptor - Lo	ot 4	J																											
3 2012	MDA	46	46	0																									
nterceptor - Lo	ot 5																												
4 2013	MDA	34	34	0																									
nterceptor - Lo	ot 6	J																											
5 2014	MDA	27	27	0																									
nterceptor - Lo	ot 7	J																											
6 2015	MDA	38	38	0																									
nterceptor - Lo	ot 8																												
6 2016	MDA	36	36	0																									
nterceptor - Lo	ot 9																												
7 2017	MDA	47	47	0																									
nterceptor - Lo	ot 10																												
8 2018	MDA	109	109	0																									
nterceptor - Lo	ot 11																												
9 2019	MDA	110	64	46	8	8	8	8	8	6																			
auncher - Lot	1 1																												
10 2010	MDA	6	6	0																									
auncher - Lot	12																												
11 2011	MDA	6	6	0																									
auncher - Lot	13																												
12 2011	MDA	6	6	0																									
Launcher - Lot	t 4																												
13 2012	MDA	6	6	0																									
Launcher - Lot	t 6																												
14 2014	MDA	12	12	0																									
TFCC Tactical	Station Grou	ıp - Lot 2																											
15 2011	MDA	4	4	0																									
TFCC Tactical	Station Grou	ıp - Lot 3																											
					0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	
					C T	0 V	E	A N	E B	A R	P R	A Y	U N	U	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	1
					1			N	ے ا			'	N					<b>.</b>		14	ט	_ ^	_ ^		14	_	3	r	J

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 18 of 21

P-1 Line #29

E	xhi	ibit l	P-21, Pr	oduct	ion Sc	hedu	le: P	B 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
			riation / 01 / 17	Budg	et Act	vity /	Bud	get S	ub Ad	ctivity	<b>':</b>		Line 007 / 1			ber /	Title:							Item THA		nber /	Title	[DOI	OIC]:		
				lements in Each)								Fiscal Y	ear 2023											Fiscal Y	ear 2024						В
					ACCEPT				_						Calendar	Year 202	23								Caler	dar Yea	r 2024				Ļ
000	M F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J 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	N C E
	16	2011	MDA	2	. 2	0			·																						
TF	-CC	Tactica	al Station Grou	up - Lot 4																											
	17	2012	MDA	2	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	N N	T U	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	

Exhibit P-21, Production Schedule: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:

THAAD

THAAD

000	00701717			11					111			
		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						lni	tial			Red	order	
Ref #	Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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	6	34	40	6	6	34	40
10	Lockheed Martin - Camden, AR	1	1	3	6	8	23	31	6	4	21	25
11	Lockheed Martin - Camden, AR	1	1	2	6	8	29	37	6	4	21	25
12	Lockheed Martin - Camden, AR	1	1	2	6	10	22	32	6	4	21	25
13	Lockheed Martin - Camden, AR	1	1	2	6	10	28	38	6	3	21	24
14	Lockheed Martin - Camden, AR	1	1	2	6	6	22	28	6	4	21	25
15	Lockheed Martin - Camden, AR	1	2	2	6	6	26	32	6	4	24	28
16	Lockheed Martin - Camden, AR	1	1	1	6	10	25	35	6	4	24	28
17	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.
- 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.

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 20 of 21

P-1 Line #29

	UNCLASSIFIED	
Exhibit P-21, Production Schedule: PB 2022 Missile Defen	se Agency	<b>Date</b> : May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
"A" in the Delivery Schedule indicates the Contract Award Date.  Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are trur are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantithousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities	ities are shown in thousands. If the maximum quantity is between 1,0	as follows. If the maximum quantity is less than or equal to than 9,999, all quantities 00,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest

LI MD07 - THAAD Missile Defense Agency UNCLASSIFIED
Page 21 of 21

P-1 Line #29



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

MD08 / Ground Based Midcourse

P-1 Line Item Number / Title:

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

Line Item MDAP/MAIS Code: 362

	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	23	69	4	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	720.464	400.471	150.000	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	135.000	115.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	585.464	285.471	150.000	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	250.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	835.464	285.471	150.000	-	-	-	-	-	-	-	-	-
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (\$ in Millions)	31.325	5.804	37.500	-	-	-	-	-	-	-	-	-

#### **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 (GBI), GMD Fire Control system (GFC), GMD Communications Network (GCN), In-Flight Interceptor Communications System Data Terminal (IDT) and ground Launch Support Systems (LSS). Each GBI 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 Air Force Base (VAFB), California; Eareckson Air Station, Alaska; and Fort Drum, New York. LSS are currently located at FGA and VAFB.

Prior years do not include the rescission of \$312 million due to RKV termination: \$115 million Advanced Procurement and \$197 million Procurement.

Prior Year Advanced Procurement consisted of \$79M FY18 Advanced Procurement for Silo Interface Vaults/Silos and \$56M FY 18 Advanced Procurement for Ground Based Interceptors (GBI). This totals \$135M in Prior Year Procurement.

FY 2021 procures four (4) Configuration (C2) boost vehicles to maintain the industrial base, improve reliability, and extend the service life of extend the service life of the GBI fleet.

FY 2020 procures three (3) Configuration 2 (C2) boost vehicles to maintain the industrial base, improve reliability, and extend the service life of up to three (3) Capability Enhancement I GBIs.

FY 2020 provides for 66 LSS kits.

FY 2021 provides for additional spare boost vehicles to address operational needs, reduce turn-around time of GBI Service Life Extension Program upgrades, and maintain the Orion solid rocket motor production line

UNCLASSIFIED
Page 1 of 13

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

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): B

Program Elements for Code B Items: 0603882C

Other Related Program Elements: 0603882C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Ground Based Midcourse		В		0 / 0.000	69 / 285.471	4 / 150.000	- / -	- / -	- / -
P-5	Ground Based Interceptors (GBI)	P-5a, P-21	В		1 / 253.000	- / 115.000	- / 0.000	- / -	- / -	- / -
P-5	Silo Interface Vaults/Silos	P-5a, P-21	В		22 / 467.464	- / 0.000	- / 0.000	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				23 / 720.464	69 / 400.471	4 / 150.000	- 1 -	- 1 -	- 1 -

<sup>\*</sup>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

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:

MD08 / Ground Based Midcourse

Ground Based Midcourse

ID Code (A=Service Ready, B=Not Service Ready) : B		MD	AP/MAIS Code:			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	0	69	4	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	285.471	150.000	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	285.471	150.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	115.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	115.000	285.471	150.000	-	-	-
(The following Resource Summary rows are for informati	ional purposes only. The corre	esponding budget requests	are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.000	4.137	37.500	_	_	-

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

	F	Prior Years	S		FY 2020			FY 2021		F۱	/ 2022 Ba	se	F۱	/ 2022 OC	0	F	/ 2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Hardware Cost			'				'	'		'		'	'					
Non Recurring Cost																		
Boost Vehicles	-	-	-	50.000	3	150.000	37.500	4	150.000	-	-	-	-	-	-	-	-	-
Launch Support Systems	-	-	-	2.045	66	135.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	=	-	-	=	285.000	-	-	150.000	-	-	-	-	-	-	-	=	-
Subtotal: Hardware Cost	-	-	-	-	-	285.000	-	-	150.000	-	-	-	-	-	-	-	-	-
Support Cost																		
Obsolescence	-	-	-	0.471	1	0.471	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	-	-	-	0.471	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	0.000	0	0.000	4.137	69	285.471	37.500	4	150.000	-	-	-	-	-	-	-	-	-

Remarks:

N/A

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 0300D / 01 / 17 MD08 / Ground Based Midcourse Ground Based Interceptors (GBI)

ID Code (A=Service Ready, B=Not Service Ready) : B		M	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	1	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	253.000	115.000	0.000	-	-	-
Less PY Advance Procurement (\$ in Millions)	56.000	115.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	197.000	0.000	0.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	56.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	253.000	0.000	0.000	-	-	-
(The following Resource Summary rows are for informati	ional purposes only. The cor	responding budget reques	s are documented elsewher	re.)		?
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	253.000	0.000	0.000	-	-	-

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

110to: Gastotalo di Totalo I	= = = = = = = = = = = = = = = = =		- State Shade C	. ca oxaoti	, 445 10 100													,
	F	Prior Year	s		FY 2020			FY 2021		F	1 2022 Ba	se	F	1 2022 OC	0	F'	Y 2022 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Ground Based Interceptors <sup>(†)</sup>	253.000	1	253.000	-	-	115.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	253.000	-	-	115.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	253.000	-	-	115.000	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	253.000	1	253.000	0.000	-	115.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

#### Remarks:

For purchase of long-lead hardware

LI MD08 - Ground Based Midcourse

Missile Defense Agency

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 N	lissile Defen	e Agency			Date	: May 202	1		
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Ite	n Number / Title:			Item	Number /	Title [	[DODIC]:	
0300D / 01 / 17	MD08 / Gro	nd Based Midcourse			Grou	nd Based	Interce	eptors (GB	d)
0	Method	<sup>-</sup> уре		Date			Specs	Date	
C			Award	of Eirot			Avail	Dovicion	DED locus

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Ground Based Interceptors - Hardware <sup>(†)</sup>		2019	Boeing / Huntsville	C / CPIF	Huntsville	Oct 2018	Jan 2019	1	0.000	Y		Jan 2018

<sup>(†)</sup> indicates the presence of a P-21

ion / Budg / 17 Cost Elements (Units in Each)	et Activ							P-1	Line	Item	Num	ber /	Title:			_				1	e: May			IDOL	NC1·	
/ 17 Cost Elements		vity /	Budg	et Sı	ıb Ac	tivity	•	1		Item	Num	ber /	Title:							Itom	Num	hor/	Title	IDOI	NC1·	
								טואו	08 / 0	∃roun	d Bas	ed M	idcou								und B					81)
								Fiscal Yo	ear 2019											Fiscal Y	ear 2020					
	ACCEPT										Calendar	Year 201	9								Calen	dar Year	2020			
PROC ERVICE QTY	PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J 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
erceptors - Hardwa	are				·							·		,										<u>'</u>		
DA .	1 0	1	A -	-	-	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 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	A U G	S E P
ero	RVICE QTY ceptors - Hardwa	PROC OCT 2018  ceptors - Hardware	RVICE PROC OCT AS OF 2018 1 OCT Deptors - Hardware	PROC   QTY   2018   AS OF   C   T	PROC   QTY   2018   AS OF   C   V	PROC   QTY   2018   1 OCT   T   V   C	PROC   QTY   2018   1 OCT   T   V   C   N	PROC   QTY   2018   AS OF   C   V   C   N   B	PROC   QTY   2018   1 OCT   T   V   C   N   B   R	PROC QTY 2018 1 OCT T V C N B R R  ceptors - Hardware  1 0 1 A 1  0 N D J F M A P C O E A E A P R	PROC QTY 2018 1 OCT T V C N B R R Y  Deptors - Hardware  1 0 1 A 1  0 N D J F M A M C O E A E A P A P A Y	PROC   QTY   2018   1 OCT   T   V   C   N   B   R   R   Y   N	PROC QTY 2018 1 OCT T V C N B R P A U U U CEPTORS - Hardware  1 0 1 A 1  O N D J F M A M J J J C O E A E A E A P A U U U U U U U U U U U U U U U U U	PROC QTY 2018 1 OCT T V C N B R P A U U U G  Explore - Hardware  1 0 1 A 1  0 N D J F M A M J J A OC C O E A E A E A P A U U U U U U U U U U U U U U U U U	PROC   QTY   2018   1 OCT   T   V   C   N   B   R   R   Y   N   L   G   P	PROC QTY 2018 1 OCT T V C N B R P A U U U G E C C QTY 2018 1 OCT T V C N B R R N Y N L G P T C C C N B R R N Y N L C C P T C C C C N B R R R N Y N L C C P T C C C C C C C C C C C C C C C C	PROC QTY 2018 1 OCT T V C N B R R Y N L G P T V  Ceptors - Hardware  1 0 1 A 1  0 N D J F M A M J J A S O N C O E A E A E A P A U U U U E C O O O O O O O O O O O O O O O O O O	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   C   O   E   O   O   E   O   O   O   O   O	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   G   P   T   V   C   N    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   R   R   Y   N   L   G   P   T   V   C   N    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   R   R   Y   N   L   G   P   T   V   C   N    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   G   P   T   V   C   N    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   U   G   P   T   V   C   N    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   E   C   O   E   A    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   E   C   O   E   A    REPUTED   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   U	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   G   P   T   V   C   N   B   R   R   Y   N   L   G   P   T   V   C   N   B   R   R   R   R   R   R   R   R   R	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   G   P   T   V   C   N   B   R   R   P   P   P   P   P   P   P   P	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   A   E   A   P   R   P   C   O   E   A   E   A   P   C   O   E   A   E   A   P   C   O   C   O   C   O   C   O   C   O   O	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   A   E   A   P   A   Y   N   C   N   B   R   R   Y   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N   C   N	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   G   P   T   V   C   N   B   R   R   Y   N   U   N   C   C   C   C   C   C   C   C   C	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   A   E   A   P   A   U   U   U   U   E   C   O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   U	RVICE   PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   A   E   A   P   A   U   U   U   G   P   T   V   C   N   B   R   R   Y   N   U   U   G   F   T   V   C   N   B   R   R   R   Y   N   U   G   G   F   T   T   T   T   T   T   T   T   T

Exhibit P-21, Production Schedule: PB 2022 Missile Defense	e Agency	Date: May 2021
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 (GBI)

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MF	R					lni	tial			Red	rder	
Re #	f Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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

<sup>&</sup>quot;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 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).

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency **Date:** May 2021 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 0300D / 01 / 17 MD08 / Ground Based Midcourse Silo Interface Vaults/Silos

ID Code (A=Service Ready, B=Not Service Ready) : B		ME	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2020	FY 2021	<b>FY 2022 Base</b>	FY 2022 OCO	FY 2022 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)	79.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	388.464	0.000	0.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	79.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	467.464	0.000	0.000	-	-	-
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	e.)		
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

	P	rior Years	;		FY 2020			FY 2021		FY	2022 Ba	se	F۱	/ 2022 OC	0	FY	/ 2022 To	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Hardware Cost													,					
Non Recurring Cost																		
Silos <sup>(†)</sup>	21.248	22	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	21.248	22	467.464	0.000	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

#### Remarks:

N/A

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 N	Missile Defense Agency	Date: May 2021
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	000	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Silos - Hardware <sup>(†)</sup>		2018	Boeing / AL/AK/AZ/CA/CO/VA	SS / FPIF	Huntsville, AL	Jan 2018	Feb 2021	10	22.700	Υ	Sep 2018	Jan 2018
Silos - Hardware <sup>(†)</sup>		2019	Boeing / AL/AK/AZ/CA/CO/VA	SS / FPIF	Huntsville, AL	Jan 2018	Nov 2021	12	21.050	Υ	Sep 2018	Jan 2018

<sup>(†)</sup> indicates the presence of a P-21

E	xhi	bit F	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
			<b>iation</b> / 01 / 17	Budg	et Acti	vity /	Budç	get Si	ub Ac	tivity	:			Item Groun														[DOE Silos			
				lements in Each)								Fiscal Y	ear 2018	1		,								Fiscal Y	ear 2019						В
					ACCEPT									C	alendar	Year 201	18								Caler	ıdar Year	2019				L
0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U	Ŋ	A U G	S E	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U N	J U -	A U G	S E	A N C
_	$\perp$	Hardwa		Q I I	2017	1001	<u> </u>												<u> </u>						I.V.	<u> </u>	.,	_		•	_
	1	2018	MDA	10	0	10		_	_	Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	10
	1	2019	MDA	12	. 0	12				Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
						,	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	M	Α	М	J	J	Α	S	
							C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	o V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	

E	xhi	bit F	-21, Pro	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
			i <b>ation</b> / )1 / 17	Budg	et Acti	vity /	Budç	get Sı	ıb Ac	tivity	:			Item Groun														[DOD Silos			
				ements n Each)								Fiscal Y	ear 2020	)										Fiscal Ye	ar 2021						В
					ACCEPT									C	Calendar	Year 202	20								Calen	dar Year	2021				L
0	M F R			PROC	PRIOR TO 1 OCT	BAL DUE AS OF	0	N O	D E	J A	F E	M	A	M	J	J	A U	S E	0	N O	D E	J A	F E	M A	A P	M A	J	J	A U	S E	A N C
ō	#	FY	SERVICE	QTY	2019	1 OCT	T	v	c	N	В	R	R	Y	N	Ľ	Ğ	P	T	v	c	N	В	R	R	Y	N	Ľ	Ğ	P	Ē
Si	los -	Hardwa	re																												
	1	2018	MDA	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	1	3	2		0
	1	2019	MDA	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
							0	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Α	М	J	J	Α	S	
							C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	

Exhil														ICLA	1001															
	bit I	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 2022	2 Mis	sile D	efens	e Age	ency											Date	e: May	/ 202	1				
	•	riation / 01 / 17	Budg	et Acti	vity /	Budg	get Su	ıb Ac	tivity	:				Num										Num Interfa						
			lements in Each)								Fiscal Y	ear 2022	!	,									Fiscal Y	ear 2023						В
				ACCEPT										Calendar	Year 202	2								Calen	dar Yea	2023				] [
0 F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	N C
Silos - F	Hardw	vare																												
1	2018	MDA	10	10	0																									
1	2019	MDA	12	0	12	-	2	1	2	3	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	U J	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	U L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2022 Missile Defense	Agency	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
0300D / 01 / 17	MD08 / Ground Based Midcourse	Silo Interface Vaults/Silos

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						Init	tial			Reo	rder	
Ref #	Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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 was cancelled and subsequent delivery of the silos was delayed.

"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 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).



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD09 / AEGIS BMD

P-1 Line Item Number / Title:

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready); B

Program Elements for Code B Items: 0604881C. 0603892C

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	345	32	40	40	-	40	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	5,504.950	336.374	399.920	394.386	-	394.386	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	46.024	59.765	-	59.765	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5,504.950	336.374	353.896	334.621	-	334.621	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	96.995	44.901	17.493	-	17.493	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5,504.950	433.369	398.797	352.114	-	352.114	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)	•			1
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	57.642	12.786	11.997	12.515	-	12.515	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (\$ in Millions)	15.956	10.512	9.998	9.860	-	9.860	-	-	-	-	Continuing	Continuing

#### **Description:**

In accordance with the Consolidated Appropriations Act 2020, SM-3 Block IIA was transferred to MD14 from MD09 in FY 2020 and beyond. FY 2018 and FY 2019 costs are contained in MD09.

Net Procurement and Gross Weapon System costs includes all hardware and support costs and are detailed in separate P5s. Prior Year procurement 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 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 in FY 2020 and beyond.

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 1 of 21

P-1 Line #31

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD09 / AEGIS BMD

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: 0604881C, 0603892C

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Aegis BMD SM-3 Block IB	P-5a, P-21	В		315 / 4,653.892	32 / 336.374	40 / 399.920	40 / 394.386	- / -	40 / 394.386
P-5	Aegis BMD SM-3 Block IIA	P-5a, P-21	В		30 / 851.058	- / 0.000	- / 0.000	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				345 / 5,504.950	32 / 336.374	40 / 399.920	40 / 394.386	- 1 -	40 / 394.386

<sup>\*</sup>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

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:
Aegis BMD SM-3 Block IB

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	315	32	40	40	-	40
Gross/Weapon System Cost (\$ in Millions)	4,653.892	336.374	399.920	394.386	-	394.386
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	46.024	59.765	-	59.765
Net Procurement (P-1) (\$ in Millions)	4,653.892	336.374	353.896	334.621	-	334.621
Plus CY Advance Procurement (\$ in Millions)	0.000	96.995	44.901	17.493	-	17.493
Total Obligation Authority (\$ in Millions)	4,653.892	433.369	398.797	352.114	-	352.114
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	14.774	10.512	9.998	9.860	-	9.860

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

	P	rior Years	i		FY 2020			FY 2021		FY	2022 Bas	se	F۱	/ 2022 OC	0	FY	2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Flyaway Cost		'		'	'	'	'	'		<u>'</u>			'			'		'
Recurring Cost																		
SM-3 Block IA Procurement <sup>(†)</sup>	10.800	71	766.765	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SM-3 Block IB Procurement <sup>(†)</sup>	11.005	315	3,466.715	9.311	32	297.962	8.975	40	359.000	9.032	40	361.273	-	-	-	9.032	40	361.27
Subtotal: Recurring Cost	-	-	4,233.480	-	-	297.962	-	-	359.000	-	-	361.273	-	-	-	-	-	361.27
Subtotal: Flyaway Cost	-	-	4,233.480	-	-	297.962	-	-	359.000	-	-	361.273	-	-	-	-	-	361.27
Hardware Cost																		
Recurring Cost																		
Canisters Procurement SM-3 Block IA/IB (1)	0.239	324	77.585	0.304	32	9.712	0.322	40	12.888	0.297	40	11.889	-	-	-	0.297	40	11.88
Subtotal: Recurring Cost	-	-	77.585	-	-	9.712	-	-	12.888	-	-	11.889	-	-	-	-	-	11.88
Subtotal: Hardware Cost	-	-	77.585	-	-	9.712	-	-	12.888	-	-	11.889	-	-	-	-	-	11.88
Support Cost								·										
Ballistic Barriers for Transportation SM-3 Block IB (2)	0.305	36	10.963	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyber Security (3)	-	-	-	1.500	1	1.500	1.500	1	1.500	-	-	-	-	-	-	-	-	-
Diminishing Manufacturing Sources Mitigation (4)	8.658	2	17.315	3.660	1	3.660	3.733	1	3.733	3.866	1	3.866	-	-	-	3.866	1	3.86
SM-3 Blk IB Investment Spares (5)	8.156	3	24.467	7.419	1	7.419	10.737	1	10.737	7.414	1	7.414	-	-	-	7.414	1	7.41

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 3 of 21

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

MD09 / AEGIS BMD

Aegis BMD SM-3 Block IB

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

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

	F	Prior Years	S		FY 2020			FY 2021		F	1 2022 Ba	se	F	1 2022 OC	0	F	/ 2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)												
SM-3 Block IB Obsolescence (6)	17.425	3	52.274	1.367	1	1.367	1.394	1	1.394	1.375	1	1.375	-	-	-	1.375	1	1.375
SM-3 Block IB Production Engineering (7)	26.484	8	211.875	4.080	1	4.080	4.162	1	4.162	3.751	1	3.751	-	-	-	3.751	1	3.751
SM-3 Block IB Service Life Evaluation Program	3.910	3	11.729	0.171	1	0.171	2.000	1	2.000	-	-	-	-	-	-	-	-	-
SM-3 Block IB Systems Engineering and Integration (9)	7.102	2	14.204	10.503	1	10.503	4.506	1	4.506	4.818	1	4.818	-	-	-	4.818	1	4.818
Subtotal: Support Cost	-	-	342.827	-	-	28.700	-	-	28.032	-	-	21.224	-	-	-	-	-	21.224
Gross/Weapon System Cost	14.774	315	4,653.892	10.512	32	336.374	9.998	40	399.920	9.860	40	394.386	-	-	-	9.860	40	394.386

#### 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 material 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.
- (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.

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 4 of 21

P-1 Line #31

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agen	су		Date: May 2021
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) : B	M	DAP/MAIS Code:	
(†) indicates the presence of a P-5a			

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 5 of 21

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD09 / AEGIS BMD

Aegis BMD SM-3 Block IB

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ M)	Now?	Available	Date
SM-3 Block IA Procurement <sup>(†)</sup>		2009	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Feb 2008	Mar 2010	11	8.405	Y		Mar 2007
SM-3 Block IA Procurement <sup>(†)</sup>		2010	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Apr 2008	Aug 2010	24	8.119	Y		Mar 2007
SM-3 Block IA Procurement <sup>(†)</sup>		2011	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2012	Sep 2013	22	9.525	Y		Nov 2010
SM-3 Block IA Procurement <sup>(†)</sup>		2012	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2012	Jul 2014	14	9.867	Y		Aug 2011
SM-3 Block IB Procurement <sup>(†)</sup>		2012	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	May 2012	Dec 2013	14	13.400	Y		Aug 2011
SM-3 Block IB Procurement <sup>(†)</sup>		2013	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Jun 2013	Jun 2014	33	12.130	Y		Aug 2012
SM-3 Block IB Procurement <sup>(†)</sup>		2014	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Apr 2014	Jan 2016	52	10.236	Y		Aug 2013
SM-3 Block IB Procurement <sup>(†)</sup>		2015	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2015	Nov 2016	52	11.411	Y		Aug 2014
SM-3 Block IB Procurement <sup>(†)</sup>		2016	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2016	Oct 2018	46	11.538	Y		Aug 2015
SM-3 Block IB Procurement <sup>(†)</sup>		2017	Raytheon / Tucson, AZ	SS / FP	Dahlgren, VA	Mar 2017	Oct 2019	35	10.896	Y		Aug 2016
SM-3 Block IB Procurement <sup>(†)</sup>		2018	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Apr 2019	Jan 2021	44	11.843	Y		Aug 2017
SM-3 Block IB Procurement <sup>(†)</sup>		2019	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2020	May 2022	39	8.980	Y		Aug 2018

<sup>(†)</sup> indicates the presence of a P-21

BAL DUE AS OF 1 OCT	0 N	Sub Ac	J A N	F E B	MD	09 / A P	M	ВМ								P	tem Nui Aegis BN	/ID SM					В
BAL DUE AS OF 1 OCT	c   c	) E	A	F E B	M A	A P	M	alendar	Year 200	08		-				Fis		9					
BAL DUE AS OF 1 OCT	c   c	) E	A	E B	Α	P	М	alendar	Year 200	08													A
DUE AS OF 1 OCT	c   c	) E	A	E B	Α	P	M										Cal	endar Yea	2009				L
24						R	A Y	N U	J U L	A U G	S E P	O C T	N O V	D E C	A	E	M A P R	M A Y	J U N	J U L	A U G	S E P	N C E
24												,			<u> </u>								
				A -	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	
22						Α -	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	2
																							2
14																							1
14																							1
33																							3
52																							5
52																							
46																							4
35																							3
44																							4
39	0 .			_								•		-		-							3
	c c	) E	A N	E B	A R	P R	A Y	N U	U	U G	E P	C T	0 V	E C				A Y	N N	U L	U G	S E P	
	39	0 1	O N D C O E	O N D J C O E A	O N D J F C O E A E	O N D J F M C O E A E A	O N D J F M A	O N D J F M A M	O N D J F M A M J	O N D J F M A M J J	O N D J F M A M J J A	0 N D J F M A M J J A S	O N D J F M A M J J A S O	O N D J F M A M J J A S O N	O N D J F M A M J J A S O N D	O N D J F M A M J J A S O N D J	0 N D J F M A M J J A S O N D J F	O N D J F M A M J J A S O N D J F M A	O N D J F M A M J J A S O N D J F M A M	O N D J F M A M J J A S O N D J F M A M J	O N D J F M A M J J A S O N D J F M A M J J	O N D J F M A M J J A S O N D J F M A M J J A	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 R F V SERVICE PROC OCT ASSET C O E A E A P R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G P T V C N B R R Y N L G R T T V C N B R R Y N L G R T T V C N B R R Y N L G R T T V C N B R R Y N L G R T T V C N B R R Y N L G R T T T V C N B R R Y N L G R T T T V C N B R R Y N L G R T T T V C N B R R Y N L G R T T T V C N B R R Y N L G R T T T T T T T T T T T T T T T T T T	Exh	ibit I	P-21, Pro	oducti	on Sc	hedu	e: PE	3 202	2 Mis	sile De	efens	e Age	ency							_				Date	: May	y 202	1				
Composition   Facility   Facili				Budge	t Acti	vity /	Budg	jet Su	ub Ac	tivity	:		_		-		Title:														
N												Fiscal Y	ear 2010	)										Fiscal Ye	ar 2011						В
0   # FY SERVICE QTY 2009   1 OCT   T   V   C   N   B   R   R   Y   N   L   G   P   T   V   C   N   B   R   R   Y   N   L   G   SM-3 Block IA Procurement    1   2009   MDA	o F				PRIOR		0	N	D	J	F	м	A		alendar	Year 201		s	0	N	D	J	F	м			2011 J	J	А	s	L A N
1 2009 MDA 11 0 11 2 2 2 1 1 3 1 2010 MDA 24 0 24 2 2 2 7 1 1 3 1 2011 MDA 22 0 22 1 2012 MDA 14 0 14  SM-3 Block IB Procurement  2 2012 MDA 14 0 14 2 2013 MDA 33 0 33 2 2014 MDA 52 0 52 2 2016 MDA 52 0 52 2 2016 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 36 0 39 0 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 O N D J F M A M J J A S O N D D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J		FY	SERVICE						E	A N	E B	A R	P R		U N			E P	C T		E	A N	E B	A R	P R		U N			E P	C
1   2010   MDA	SM-3	Block IA	A Procuremen			ļ.																<u>                                     </u>									
1 2011 MDA 22 0 22 1 2012 MDA 14 0 14  SM-3 Block IB Procurement  2 2012 MDA 14 0 14  2 2013 MDA 33 0 33  2 2014 MDA 52 0 52  2 2015 MDA 52 0 52  2 2016 MDA 46 0 46  2 2017 MDA 35 0 35  2 2018 MDA 35 0 35  2 2018 MDA 35 0 35  2 2019 MDA 35 0 35  2 2018 MDA 35 0 35  2 2019 MDA 35 0 35	1	2009	MDA	11	0	11	-	-	-	-	-	2	-	-	-	2	2	-	-	-	-	-	-	1	1	3					
1   2012   MDA	1			24			-	-	-	-	-	-	-	-	-	-	2	2	7	-	-	-	-	-	-	-	-	-	-	-	
SM-3 Block IB Procurement    2   2012   MDA	1	2011	MDA	22																											
2   2012   MDA					0	14																									
2 2013 MDA 33 0 33	SM-3		_			ī																									
2 2014 MDA 52 0 52 2 2015 MDA 52 0 52 2 2016 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 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 O N D J F M A M J J A	_	+																													
2 2015 MDA 52 0 52 2 2016 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 39  O N D J F M A M J J A S O N D J F M A M J J A																															
2 2016 MDA	_			-																											
2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 39	_		-																												
2 2018 MDA	_			-																											<u> </u>
2 2019 MDA 39 0 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																															:
O N D J F M A M J J A S O N D J F M A M J J A																															
	2	2019	MDA	39	0	39	_		-		-							•	•				-								;
							С	0						Α	U N	U				0	E					Α	U N			S E P	

C R F V SERVICE PROC OCT AS OF C O BE A B R R V N L G P T V C N B R R V N L G P T V C N B R R V N U U U U U U U U U U U U U U U U U U	xhi	bit l	P-21, Pro	oducti	on Sc	hedul	e: PE	3 202	2 Mis	sile De	efens	e Age	ency											Date	: May	/ 202	1				
C				Budge	t Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:						Title:														
M				n Each)								Fiscal Y	ear 2012	2										Fiscal Ye	ar 2013						B A
FY SERVICE QTY   2011   10CT   T   V   C   N   B   R   R   Y   N   L   G   P   T   V   C   N   B   R   R   Y   N   L   G   F   SM-3 Block IA Procurement   1   2009   MDA	F				PRIOR TO 1	DUE								М	J	J	А	s							A	М	J			s	L A N
1 2010 MDA		FY	SERVICE										R					P	T											E P	C E
1 2010 MDA	M-3 E	Block I	A Procuremen																					,							
1   2011   MDA   22   0   22	1	2009	MDA	11	11	0																									
1   2012   MDA	1	2010	MDA	24	11	13	-	-	-	-	6	-	1	-	-	2	-	3	-	-	-	-	-	-	-	-	-	-	-	1	
SM-3 Block IB Procurement    2   2012   MDA	1	2011	MDA	22	0	22											Α -	-	-	-	-	-	-	-	-	-	-	-	-	1	
2 2012 MDA	1	2012	MDA	14	0	14											Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	
2 2013 MDA 33 0 33	M-3 E	Block II	B Procuremen																												
2 2014 MDA 52 0 52 2 2015 MDA 52 0 52 2 2016 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 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 O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D D J F M A M J J J A S O N D D J F M A M J J J A S O N D D J F M A M J J J A S O N D D J F M A M J J J A S O N D D J F M A M D J J A S O N D D J F M A M D J J A S O N D D J F M A D U U U U U U U U U U U U U U U U U U	2	2012	MDA	14	0	14								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2 2015 MDA 52 0 52 2 2016 MDA 46 0 46 2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 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 O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A D U U U U U U U U U U U U U U U U U U	2	2013	MDA	33																							Α -	-	-	-	
2 2016 MDA	$\rightarrow$																														
2 2017 MDA 35 0 35 2 2018 MDA 44 0 44 2 2019 MDA 39 0 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 O N D J F M A M J J A S O N D J F M A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U U E E C O E A E A P A U U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U U E E C O E E A E A P A U U U U U U U E E C O E E A E A P A U U U U U U U E E C O E E A E A P A U U U U U U U U E E C O E E A E A P A U U U U U U U E E C O E E A E A P A U U U U U U U U U U U U U U U U U	2	2015	MDA	52	0	52																									
2   2018   MDA	_			46																											
2 2019 MDA 39 0 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 P A U U U E C O E A E A P A U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U U E C O E A E A P A U U U U U U E C O E A E A P A U U U U U U E C O E A E A P A U U U U U U E C O E A E A P A U U U U U U E C O E A E A P A U U U U U U U E C O E A E A P A U U U U U U U E C O E A E A P A U U U U U U U E C O E A E A P A U U U U U U U E C O E A E A E A P A U U U U U U E C O E A E A E A P A U U U U U U E C O E A E A E A P A U U U U U U E C O E A E A E A P A U U U U U U E C O E A E A E A P A U U U U U U E C O E A E A E A P A U U U U U U U E C O E A E A E A P A U U U U U U U E C O E A E A E A P A U U U U U U U E C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U E C C O E A E A E A P A U U U U U U U U U U U U U U U U U	$\rightarrow$																														
O N D J F M A M J J A S O N D J F M A M J J A S C O E A E A P A U U U E C O E A E A P A U U U E	_			44	0	44																									
C   O   E   A   E   A   P   A   U   U   E   C   O   E   A   E   A   P   A   U   U   U   E	2	2019	MDA	39	0	39																									
T   V   C   N   B   R   R   Y   N   L   G   P   T   V   C   N   B   R   R   Y   N   L   G   F										J A N					N N	1 -											J U	J U L		S E P	

												U	NCL	ASS	IFIE	)													
Exhibit	P-21, Pr	oducti	on Sc	hedul	e: PB	3 2022	2 Mis	sile D	efens	se Aq	ency											Date	: Ma	y 202	1				
	riation /									P-	1 Line	e Item AEGI		<b>nber</b> /	Title											[DOE			
		lements in Each)								Fiscal	Year 201	4										Fiscal Ye	ear 2015						B
M			ACCEPT PRIOR	BAL									Calenda	r Year 20	14								Calen	dar Yea	2015				L
O F C R O # FY	SERVICE	PROC QTY	TO 1 OCT 2013	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	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	N C E
	A Procuremen		2013	1001	•	•				<u> </u>			- "			•	•							•	- "	_		•	
1 2009	MDA	11	11	0																									
1 2010	MDA	24	24	0																									
1 2011	MDA	22	1	21	5	1	2	1	-		3	4 1	1	1 :	3														
1 2012	MDA	14	0	14	-	-	-	-	-	-	-	-	-	:	2 1	3	-	-	-	3	4	-	1						
SM-3 Block I	B Procuremen								,																				
2 2012		14	0		-	-	1	3	2	2	3	1 2		2	_			1											<u> </u>
2 2013		33	0		-	-	-	-	-	-	-	-	_	2		1		6			-	3	2	4		-	-	1	<u> </u>
2 2014		52	0								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2 2015		52	0																			A -	-	-	-	-	-	-	
2 2016		46	0	_																									
2 2017		35	0																										
2 2018		44	0						_																				
2 2019	MDA	39	0	39	•		_						1 .	Ι.			_	N	_		-								
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	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	N N J	D D	A U G	S E P	]

LI MD09 - AEGIS BMD Missile Defense Agency **UNCLASSIFIED** Page 10 of 21

chibit P-21,	Product	ion Sc	hedul	le: PB	2022	2 Miss	sile De	efens	e Age	ency											Date	: May	/ 202	1			
opropriation 800D / 01 / 1		et Acti	ivity /	Budg	et Su	ıb Ac	tivity			<b>Line</b> 09 / A				Title:								Num s BM					
	st Elements nits in Each)								Fiscal Y	ear 2016											Fiscal Ye	ear 2017					
		ACCEPT PRIOR	BAL								С	alendar	Year 201	6								Calen	dar Year	2017			
M F R # FY SERVI	PROC CE QTY	TO 1 OCT 2015	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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
1-3 Block IA Procure	ment	·		<u> </u>	,													,				,					
1 2009 MDA	11	11	0																								
1 2010 MDA	24	24	0																								
1 2011 MDA	22	22	0																								
1 2012 MDA	14	14	0																								
1-3 Block IB Procure	ment																										
2 2012 MDA	14	14	0																								
2 2013 MDA	33	24	9	4	-	5																					
2 2014 MDA	52	0	52	-	-	-	2	-	-	-	2	-	-	14	6	-	-	12	5	5	4	2					
2 2015 MDA	52	0	52	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	2	6	3	-	5	8
2 2016 MDA	46	0	46			,			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 2017 MDA	35	0	35			-															Α -	-	-	-	-	-	-
2 2018 MDA	44	0	44	_																							
2 2019 MDA	39	0	39																								
		1		0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S
				C T	O V	E C	A N	E B	A R	P R	A Y	U N	L	U	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P
			l		•	•					•	.,	_		•		•		.,	-			•	.,	-	•	

LI MD09 - AEGIS BMD Missile Defense Agency **UNCLASSIFIED** Page 11 of 21

			,	Juucti	on Sc	nedul	e: PB	202	Z IVIISS	sile D	efens	e Age	ency											Date	e: Ma	y 202	1			
500			<b>ation</b> / 1	Budge	t Acti	vity /	Budg	et Sı	ıb Ac	tivity	•		<b>Line</b> 009 / A				/ Title	•										[DOI ock IB		
			Cost E (Units i	ements n Each)								Fiscal Y	ear 2018											Fiscal Y	ear 2019					
					ACCEPT									C	Calenda	Year 2	018								Caler	dar Yea	2019			
M D F C R		FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	0 C T	N O V	D E C	J A N	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			Procurement				1																			l.		1		
1	20	009	MDA	11	11	0																								
1	20	010	MDA	24	24	0																								Ì
1	20	011	MDA	22	22	0																								Ī
1	20	012	MDA	14	14	0																								
SM-3	Bloc	ck IB f	Procurement																											
2	20	012	MDA	14	14	0																								
2	20	013	MDA	33	33	0																								
2	20	014	MDA	52	52	0																								Į
			MDA	52	27	25	3	-	9	-	-	-	-	-	-	-	-	-	13											
-	_	016		46	0		-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	3	3	6	5	13	3
_	20	$\rightarrow$	MDA	35	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			MDA	44	0																				Α -	-	-	-	-	-
2	20	019	MDA	39	0	39										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	U N	U U	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
2	20	019	MDA	39	0	39	O C T		D E C	J A N	F E B	M A R	A P R	M A Y		J U L	A U G	S E P	O C T		D E C	J A N	F E B	M A R	A P R	M A Y	J U N		A U G	

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 12 of 21

Ξx	hik	oit I	P-21, F	Proc	ductio	on Sc	hedul	le: PB	202	22 Mi	ssile D	efens	e Age	ency			-00									Date	: Ma	y 202	1				
٩p	pr	opr		/ B							ctivity		P-1	Line 09 / A				/ Title	<b>)</b> :			-				Item	Nun	ber /	Title	[DOI	IC]:		
			Cos (Ur	t Eler	ments Each)								Fiscal Y	ear 2020												Fiscal Ye							В
0	M F				PROC	ACCEPT PRIOR TO 1 OCT	BAL DUE AS OF	0	N O	D E	J	F E	М	A P	М	J U	year 20 J U	020 A U		S E	0 C	N O	D E	J A	F E	M A	Caler A P	M	J U	J	A U	S E	A N C
ö	#	FY	SERVI		QTY	2019	1 OCT	T	v	C	A N	В	A R	R	A Y	N	L	G	1	P	T	v	C	N	В	R	R	A Y	N	L	G	P	E
SM-	-3 BI	ock IA	Procurer	nent																													
-	_		MDA		11	11	0																										
-	_		MDA		24	24	0																										
-	_		MDA		22	22	0																										
_			MDA		14	14	0																										
	_		MDA MDA	nent	14	14	0																										
$\rightarrow$	-		MDA		33	33																											
$\rightarrow$	_		MDA		52	52	0																										
$\rightarrow$	_		MDA		52	52	0																										
-	_		MDA		46	37	9	9																									
$\rightarrow$	_	2017	_		35	0		4	1	0 -	1	1	2	2	3	3	; ;	3	3	3													
_	_	2018			44	0		-	-	_	-	-	-	-	-	-	-	_	_	-	-	-	-	3	3	2	4	4	4	4	4	4	
-	_		MDA		39	0	39						Α -	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	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	N N	J U L	A U G	1	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	A U G	S E P	

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 13 of 21

=XII	di	ΙŢ	P-21	, Pro	oducti	on Sc	hedu	le: PE	3 202	22 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
			<b>riatio</b> 01 /		Budge	et Acti	vity /	Budç	get S	ub Ad	ctivity	<b>'</b> :		<b>Line</b>				Title:									nber /					
													Fiscal Y	ear 2022	,		,								Fiscal Y	ear 2023	3					E
	Cost Elements (Units in Each)  ACCEPT PRIOR BAL														Calendar	Year 202	22					-				ndar Yea	2023				L	
0 F C R O #		FΥ	SER	VICE	PROC QTY	PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	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	N C
			IA Procu					-	-						-		_		-	-		_					-				-	
	_		MDA		11	11	0																									Т
1	2	010	MDA		24	24	0																									
1	2	011	1 MDA		22	22	0																									
1	2	012	2 MDA		14	14	0																									
	_		IB Procu	rement																												
_	+		2 MDA		14		_																									
	_		3 MDA		33		_																									<u></u>
_	+		1 MDA		52																											<u> </u>
	+		MDA		52 46																											-
_	+		MDA MDA		35		_																									_
	+-	017	_		44			4	4	1 4	1																					-
_	-		MDA		39			-			_	_	l .	_	7	_	_	10	_	_	10	-	_	12								-
		.010	, WIBA				00	0	N	D	J	F	М	Α	M	J	J	A	S	0	N	D	J	F	М	Α	М	J	J	Α	S	$\vdash$
								C T	O V	E C	A N	E B	A R	P R	A Y	U	U	U G	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U	U L	U G	E P	
									V	C	N	ь	K	K	1	N		G	F		V	C	N	В	K	K	ı	N		G	Г	J

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 14 of 21

P-1 Line #31

Exhibit P-21, Production Schedule: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:
Aegis BMD SM-3 Block IB

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						lni	ial			Reo	rder	
Ref					ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	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

<sup>&</sup>quot;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 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).

LI MD09 - AEGIS BMD Missile Defense Agency UNCLASSIFIED
Page 15 of 21

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD09 / AEGIS BMD

Date: May 2021

Item Number / Title [DODIC]:

Aegis BMD SM-3 Block IIA

	MI	DAP/MAIS Code:			
Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
30	-	-	-	-	-
851.058	0.000	0.000	-	-	-
0.000	0.000	0.000	-	-	-
851.058	0.000	0.000	-	-	-
0.000	0.000	0.000	-	-	-
851.058	0.000	0.000	-	-	-
nal purposes only. The corr	responding budget request	s are documented elsewher	re.)		
-	-	-	-	-	-
	30 851.058 0.000 851.058 0.000 851.058	Prior Years         FY 2020           30         -           851.058         0.000           0.000         0.000           851.058         0.000           0.000         0.000           851.058         0.000           851.058         0.000	30     -     -       851.058     0.000     0.000       0.000     0.000     0.000       851.058     0.000     0.000       0.000     0.000     0.000       851.058     0.000     0.000       851.058     0.000     0.000	Prior Years         FY 2020         FY 2021         FY 2022 Base           30         -         -         -           851.058         0.000         0.000         -           0.000         0.000         0.000         -           851.058         0.000         0.000         -           0.000         0.000         0.000         -	Prior Years         FY 2020         FY 2021         FY 2022 Base         FY 2022 OCO           30         -         -         -         -         -           851.058         0.000         0.000         -         -         -           0.000         0.000         0.000         -         -         -         -           851.058         0.000         0.000         -         -         -         -           851.058         0.000         0.000         -         -         -         -           851.058         0.000         0.000         -         -         -         -

0.000

0.000

28.369

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

	P	rior Years	;		FY 2020			FY 2021		FY	Y 2022 Ba	se	F	/ 2022 OC	0	F	/ 2022 Tot	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Flyaway Cost																		
Recurring Cost																		
SM-3 Block IIA Procurement <sup>(†)</sup>	27.018	30	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	-	-	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
Canisters Procurement SM-3 Block IIA	1.224	32	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Cost																		
SM-3 Block IIA Production Engineering	1.354	1	1.354	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	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

Gross/Weapon System Unit Cost (\$ in Millions)

Exhibit P-5a, Procurement History and Planning: PB 2022 N	Missile Defense Agency	Date: May 2021
1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
0300D / 01 / 17	MD09 / AEGIS BMD	Aegis BMD SM-3 Block IIA

Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
SM-3 Block IIA Procurement <sup>(†)</sup>		2018	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2018	Apr 2022	20	26.848	Y		

<sup>(†)</sup> indicates the presence of a P-21

LI MD09 - AEGIS BMD Missile Defense Agency

:xnıt	oit F	P-21, Pr	oducti	on Sc	hedul	le: PE	202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
		riation / 01 / 17	Budge	et Acti	vity /	Budg	et Sı	ub Ac	tivity	:		Line 009 / A				Title											[DOE ock II/			
			lements in Each)								Fiscal Y	ear 2018	1										Fiscal Y	ear 2019						
				ACCEPT PRIOR						C	alenda	r Year 20	18								Calen	dar Year	2019				] 1			
M D F C R	FY	SERVICE	PROC QTY	TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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 BI	ock II	A Procureme	nt																											
Prior Ye	ars D	eliveries: 10																												
1	2018	MDA	20	0	20										_	Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	
						O C T	N O V	D E C	J A N	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 L	A U G	S E P	

xhibit F	P-21, Pro	oduct	ion Sc	hedul	e: PB	202	2 Miss	sile D	efens	e Age	ency											Date	e: Ma	y 202	1			
<b>ppropr</b> i 300D / (	<b>iation</b> / 01 / 17	Budg	et Acti	vity /	Budg	et Su	ıb Ac	tivity	:				Num B BME		Title:											[DOI		
		lements in Each)								Fiscal Y	ear 2020		,									Fiscal Y	ear 2021			,		
			ACCEPT									C	Calendar	Year 202	:0				_				Caler	dar Yea	r 2021			
M F R # FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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
M-3 Block IIA	A Procuremer	nt																								-		
rior Years De	eliveries: 10																											
1 2018	MDA	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	n n	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	U L	A U G	S E P
				ı		-							1												1			

Exhibit P-21, Pro	duction S	chedu	<b>e:</b> PB	2022	2 Miss	ile D	efens	e Age	ency											Date	e: Ma	y 202	.1			
<b>Appropriation / E</b> 0300D / 01 / 17	Budget Ac	tivity /	Budg	et Su	b Ac	tivity	:		<b>Line</b> 09 / A				Title:										/ <b>Title</b> 1-3 Blo			
	O / 01 / 17    Cost Elements (Units in Each)     ACCEPT   PRIOR   TO 1   DUE   O   N   D   J								ear 2022											Fiscal Y	ear 2023			,		
M	Continue   Continue																				Caler	ndar Yea	r 2023			1
O F C R	PROC OCT	DUE AS OF	С	0	E		E	Α	P	Α	U	J U L	U	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		,							'		,			'							,	'				,
Prior Years Deliveries: 10								ı										-								
1 2018 MDA	20	0 20		- NI	E   A   E   A   P   A   U   U   U									S 2	0	2 N	D 2	2	_	М	Α	М	Τ.		Α.	•
	3 Block IIA Procurement r Years Deliveries: 10 1   2018   MDA       20     0     20     -     -     -     -     2     2     2     2      O N D J F M A M J J A C O E A E A P A U U U U									E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	Ü	U G	S E P				

Exhibit P-21, Production Schedule: PB 2022 Missile Defense	e Agency	Date: May 2021
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

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						lni	tial			Reo	rder	
Ref	Manufacturer	MOD 5	4055	MAY 5	ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	After Oct 1
1	Raytheon - Tucson, AZ	1	1	2	0	0	0	0	0	0	0	0

<sup>&</sup>quot;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 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).

LI MD09 - AEGIS BMD Missile Defense Agency **UNCLASSIFIED** 



Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

MD09 / AEGIS BMD

P-1 Line Item Number / Title:

Program Elements for Code B Items: 0604881C, 0603892C

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Gross/Weapon System Cost (\$ in Millions)	0.000	96.995	44.901	17.493	-	17.493	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	96.995	44.901	17.493	-	17.493	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	96.995	44.901	17.493	-	17.493	-	-	-	-	-	-

#### **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 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.

LI MD09 - AEGIS BMD Missile Defense Agency **UNCLASSIFIED** 

P-1 Line #32 **Volume 2b - 59** 

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

MD09 / AEGIS BMD

P-1 Line Item Number / Title:

Program Elements for Code B Items: 0604881C, 0603892C

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule			Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-10	Aegis BMD SM-3 Block IB			315 / 0.000	32 / 96.995	40 / 44.901	40 / 17.493	- / -	40 / 17.493
P-40	Total Gross/Weapon System Cost			345 / 0.000	32 / 96.995	40 / 44.901	40 / 17.493	- 1 -	40 / 17.493

<sup>\*</sup>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 will procure 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.

LI MD09 - AEGIS BMD Missile Defense Agency **UNCLASSIFIED** 

Volume 2b - 60

Exhibit P-10, Advance Procurement Defense Agency	nt Requirer	nents Analysis	s (page 1 -	Budget Funding Just	ificat	ion): PB 2022 Missile	<b>Date:</b> May 2021		
Appropriation / Budget Activity / B 0300D / 01 / 17	udget Sub	Activity:		Item Number / Title: EGIS BMD			P-5 Number / Title Aegis BMD SM-3 E	· ='	
First System (2022) Award Date: January 2018	First Syste October 20	em (2022) Comple 020	tion Date:			Interval Between Sys 1 Months	tems:		
Aegis BMD SM-3 Block IB		Production Le		Prior Years (Each)		FY 2020 (Each)	FY 2021 (Each)	<b>FY 2022</b> (Each)	
Quantity			30	315		32	40		40
Cost Elements		When Requ (Months)		Prior Years (\$ M)		FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)	
EOQ									
Aegis Advanced Procurement			0	-		96.995	44.901		17.493
Total: EOQ				0.000		96.995	44.901		17.493
Total Advance Procurement/Obligation Aut	hority			0.000		96.995	44.901		17.493

sis (page 2 - B	Budget Funding .	Justification):	PB 2022 Missile	Date: May	2021	
		9:				3
			FY 20	22		
<b>QPA</b> (Each)	Production Leadtime (Months)	Unit Cost	Contract Forecast Date	<b>2022 Qty</b> (Each)	For FY	Total Cost Request (\$ M)
	0					17.493
						17.493
						17.493
	P-1 Line Ite MD09 / AEG	P-1 Line Item Number / Title MD09 / AEGIS BMD  Production Leadtime	P-1 Line Item Number / Title: MD09 / AEGIS BMD  Production Leadtime Unit Cost	MD09 / AEGIS BMD  FY 20  Production Leadtime Unit Cost Contract	P-1 Line Item Number / Title:  MD09 / AEGIS BMD  P-5 Numb Aegis BMD  FY 2022  Production Leadtime Unit Cost Contract 2022 Qty	P-1 Line Item Number / Title:  MD09 / AEGIS BMD  P-5 Number / Title:  Aegis BMD SM-3 Block IE  FY 2022  Production Leadtime Unit Cost Contract 2022 Qty

#### 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

Date

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

i. I b 2022 Missile belefise Agency

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Major MD11 / BMDS Sensors

P-1 Line Item Number / Title:

Equipment, Missile Defense Agency

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

Line item widap/wiais code: 362												
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity (Units in Each)	5	-	1	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738	-	-	-	-	-	-
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget requests	are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	10.901	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	172.502	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (\$ in Millions)	530.334	0.000	243.270	-	-	-	-	-	-	-	-	-

#### **Description:**

The Army Navy/Transportable Radar Surveillance and Control (AN/TPY-2) radar is an integral component of the Missile Defense System (MDS) layered network of sensors. It is easily transported 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 MDS engagement. In forward-based mode, the AN/TPY-2 also provides acquisition and track data via the MDS 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 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 secure server procurement updates the existing servers and enhances cybersecurity protection 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) redesign kit with Arbitrary Waveform Generator (AWFG) procurement will upgrade from the current analog Receiver/Exciter (REX) technology to a modern digital capability increasing reliability and spares availability for the fleet.

The AEU Transformer and PPU procurement addressed the obsolescence in major end items and was completed in FY 2020.

The FY 2021 Congressional Plus Up (CPU) procures one (1) AN/TPY-2 Radar which includes one AEU, one CEU, one EEU, and two PPUs.

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 1 of 30

P-1 Line #33

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	BMDS AN/TPY-2 Radars	P-5a, P-21	Α		5 / 2,651.672	- / 10.046	1 / 243.270	- /2.738	- / -	- / 2.738
P-40	Total Gross/Weapon System Cost				5 / 2,651.672	- / 10.046	1 / 243.270	- / 2.738	- 1 -	- / 2.738

<sup>\*</sup>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 2021 through FY 2026 base procurement provides:

- Procure one (1) complete AN/TPY-2 Radar which includes one AEU, one CEU, one EEU, and two PPUs.
- Secure servers to upgrade the existing servers and enhance cybersecurity protection for the fleet.
- The Change Notice procurement will procure CEU modernization kits and bring the fleets CEUs into a common, more reliable configuration.
- DREX redesign kits with AWFG to upgrade the current analog REX technology to a modern digital capability increasing reliability and availability to the fleet.
- The AEU Transformer and PPU procurement addressed the obsolescence in major end items, and was completed in FY 2020.

The decrease from FY 2021 to FY 2022 reflects the procurement of (1) AN/TPY-2 Radar with FY 2021 CPU.

Procurement quantity above reflects procurement of complete radars only. Seven (7) of the twelve (12) AN/TPY-2 Radars delivered to date were funded with Research Development Test and Evaluation in Program Element 0603884C, thus not included in the costs above.

LI MD11 - BMDS Sensors Missile Defense Agency Page 2 of 30

P-1 Line #33

**Date:** May 2021 Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 0300D / 01 / 17 MD11 / BMDS Sensors BMDS AN/TPY-2 Radars

ID Code (A=Service Ready, B=Not Service Ready): A		MD	AP/MAIS Code:			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	5	-	1	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	2,651.672	10.046	243.270	2.738	-	2.738
(The following Resource Summary rows are for int	formational purposes only. The corre	esponding budget requests	are documented elsewher	e.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	530.334	0.000	243.270	-	_	_

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

	P	rior Years	5		FY 2020			FY 2021		FY	2022 Bas	se	F۱	/ 2022 OC	0	FY	/ 2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Hardware Cost	'						'	'		'			'			'		
Recurring Cost																		
AN/TPY-2 Major End Item CN Kits <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	2.738	1	2.738	-	-	-	2.738	1	2.73
AN/TPY-2 Secure Servers <sup>(†)</sup>	1.862	2	3.724	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenna Equipment Unit (AEU) <sup>(†)</sup>	130.482	5	652.411	-	-	-	164.040	1	164.040	-	-	-	-	-	-	-	-	-
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>	1.132	8	9.055	0.887	2	1.774	-	-	-	-	-	-	-	-	-	-	-	-
COBRA DANE Transmitter Group Replacement <sup>(†)</sup>	9.704	2	19.408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooling Equipment Unit (CEU) <sup>(†)</sup>	6.996	5	34.982	-	-	-	13.660	1	13.660	-	-	-	-	-	-	-	-	-
Critical Spares <sup>(†)</sup>	9.742	3	29.227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electronic Equipment Unit (EEU) <sup>(†)</sup>	20.914	5	104.572	-	-	-	29.355	1	29.355	-	-	-	-	-	-	-	-	-
Electronic Equipment Unit (EEU) Modification Kit <sup>(†)</sup>	4.850	5	24.248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

P-1 Line Item Number / Title:

MD11 / BMDS Sensors

Date: May 2021

Item Number / Title [DODIC]:

BMDS AN/TPY-2 Radars

ID Code (A=Service Ready, B=Not Service Ready) : A

0300D / 01 / 17

Appropriation / Budget Activity / Budget Sub Activity:

MDAP/MAIS Code:

Cost Elements  Float Antenna Equipment Unit (AEU) <sup>(†)</sup> Float Cooling Equipment Unit (CEU) <sup>(†)</sup> Float Electronic Equipment Unit (EEU) <sup>(†)</sup> Forward-Based Mode Prime Power Units (PPU) <sup>(†)</sup> Prime Power Unit (PPUs - 2 each radar system) <sup>(†)</sup> Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup> †Radar Field Upgrade (RAFU) Kit Subtotal: Recurring Cost Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Contractor Certification <sup>(†)</sup> Reference Horn	(Each) 9 11 15 15			Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)  18.108	Qty (Each)	Total Cost (\$ M)		Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Tota Cos (\$ h
Equipment Unit (AEU) <sup>(†)</sup> Float Cooling Equipment Unit (CEU) <sup>(†)</sup> Float Electronic Equipment Unit (EEU) <sup>(†)</sup> Forward-Based Mode Prime Power Units (PPU) <sup>(†)</sup> Prime Power Unit (PPUs - 2 each radar system) <sup>(†)</sup> Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup> †Radar Field Upgrade (RAFU) Kit  Subtotal: Recurring Cost  Antenna Equipment Unit (AEU) Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> - Contractor Certification <sup>(†)</sup> 12.929  14.929  14.931  15.9491  16.201  16.201  17.450.000  17.450.000  18.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000  19.450.000	99 111 155 199 100	2 25.857 2 42.982 4 43.940 5 70.545 1 59.840		-	-	- 18.108	2	-	-	-	-	-	-	-	-	-	
Equipment Unit (CEU) <sup>(†)</sup>   12.929   (CEU) <sup>(†)</sup>   12.929   (CEU) <sup>(†)</sup>   Float Electronic Equipment Unit (EEU) <sup>(†)</sup>   21.491   (EEU) <sup>(†)</sup>   10.985   (PPU) <sup>(†)</sup>   10.985   (PPU) <sup>(†)</sup>   Prime Power Unit (PPUs - 2 each radar system) <sup>(†)</sup>   Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup>   †Radar Field Upgrade (RAFU) Kit   1,450.000   (RAFU) Kit   Subtotal: Recurring Cost   Antenna Equipment Unit (AEU) Radome <sup>(†)</sup>   Antenna Equipment Unit (AEU) Radome <sup>(†)</sup>   Antenna Equipment Unit (AEU) Transformer Hoses   CEU Fan Motors <sup>(†)</sup>   - Contractor Certification <sup>(†)</sup>   2.862	11 15 15 19 10 10 10 10 10 10 10 10 10 10 10 10 10	2 42.982 4 43.940 5 70.545 1 59.840		-	-	- 18.108	- 2		-	-	-	-	-	-	-	-	
Equipment Unit (EEU) <sup>(†)</sup>   21.491	99	4 43.940 5 70.545 1 59.840		-	-	18.108	- 2		-	-	-	-	-	-	-	-	
Prime Power Units (PPU) <sup>(†)</sup> Prime Power Unit (PPUs - 2 each radar system) <sup>(†)</sup> Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup> †Radar Field Upgrade (RAFU) Kit  Subtotal: Recurring Cost  Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 10.985  14.109  14.109  15.840  16.850  16.850  17.850  16.850  17.850  17.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.850  18.85	99	5 70.545 1 59.840	-	-	-	18.108	2		-				-	-		-	
(PPUs - 2 each radar system) <sup>(†)</sup> 14.109           Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup> 59.840           HRadar Field Upgrade (RAFU) Kit         1,450.000           Subtotal: Recurring Cost         -           Non Recurring Cost         -           Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> -           Antenna Equipment Unit (AEU) Transformer Hoses         -           CEU Fan Motors <sup>(†)</sup> -           Contractor Certification <sup>(†)</sup> 2.862	40	1 59.840	-					36.215		-	-	-	-	-	-	-	
Integrated Microwave Module (TRIMMs) <sup>(†)</sup> †Radar Field Upgrade (RAFU) Kit  1,450.000  Subtotal: Recurring Cost  Non Recurring Cost  Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 59.840  1,450.000  -  1,450.000  -  1,450.000  -  1,450.000  -  2,862				-	-	-	-	-									T
(RAFU) Kit 1,450.000  Subtotal: Recurring Cost -  Non Recurring Cost  Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 2.862	10	1 1 450 000				1			-	-	-	-	-	-	-	-	
Non Recurring Cost  Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 2.862	10	1,430.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Antenna Equipment Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 2.862		- 2,632.810	-	-	1.774	-	-	243.270	-	-	2.738	-	-	-	-	-	
Unit (AEU) Radome <sup>(†)</sup> Antenna Equipment Unit (AEU) Transformer Hoses  CEU Fan Motors <sup>(†)</sup> Contractor Certification <sup>(†)</sup> 2.862																	
Unit (AEU) - Transformer Hoses  CEU Fan Motors <sup>(†)</sup> - Contractor Certification <sup>(†)</sup> 2.862			1.525	1	1.525	-	-	-	-	-	-	-		-	-	-	
Contractor Certification <sup>(†)</sup> 2.862			0.001	180	0.151	-	-	-	-	-	-	-	-	-	-	-	
Contractor Certification <sup>(†)</sup> 2.862			0.122	24	2.933	-	-	-	-	-	-	-	-	-	-	-	
Reference Horn	52	1 2.862	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Switch Assembly (RHSA) Retrofit Kits <sup>(†)</sup>			0.242	1	0.242	-	-	-	-	-	-	-	-	-	-	-	
Retrofit Firewall Kits <sup>(†)</sup> -			0.092	37	3.421	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Non Recurring Cost		- 2.862	-	-	8.272	-	-	-	-	-	-	-	-	-	-	-	
ubtotal: Hardware Cost -		- 2,635.672	-	-	10.046	-	-	243.270	-	-	2.738	-	-	-	-	-	
upport Cost																	

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 4 of 30

P-1 Line #33

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

MD11 / BMDS Sensors

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.

					,	- 3												_
	F	Prior Years	s		FY 2020			FY 2021		F	Y 2022 Ba	se	F'	Y 2022 OC	0	F'	Y 2022 Tot	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Subtotal: Support Cost	-	-	16.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	530.334	5	2,651.672	0.000	-	10.046	243.270	1	243.270	-	-	2.738	-	-	-	-	-	2.738

#### 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 twelve (12) AN/TPY-2 Radars delivered 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

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title:

0300D / 01 / 17 MD11 / BMDS Sensors

**Date:** May 2021

Item Number / Title [DODIC]:

BMDS AN/TPY-2 Radars

וווטועטטטו			IVI	DTT DIVIDS SEI	13013			DIVID	S AIN/IF I	2 1 (4)	uais	
04 514.	0 0	F)/	Outroton and local	Method/Type or	Leastles of BCC	Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issu
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ M)	Now?	Available	Date
AN/TPY-2 Major End Item CN Kits - 1 <sup>(†)</sup>		2022	Raytheon / Woburn, MA	C/BA	MDA, Huntsville, AL	Oct 2021	Apr 2022	1	2.738	N		May 2021
AN/TPY-2 Secure Servers - Lot <sup>(†)</sup>		2019	Raytheon / Woburn, MA	C/BA	MDA, Huntsville, AL	Feb 2019	Aug 2020	2	1.862	N		Jun 2018
Antenna Equipment Unit (AEU) <sup>(†)</sup>		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	144.290	Υ		
Antenna Equipment Unit (AEU) <sup>(†)</sup>		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	144.090	Υ		
Antenna Equipment Unit (AEU) - 1 <sup>(†)</sup>		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	126.400	Υ		
Antenna Equipment Unit (AEU) - $2^{(\dagger)}$		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	126.400	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Sep 2015	3	1.775	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Sep 2016	1	0.410	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2017	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2016	Sep 2017	1	0.919	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2018	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2017	Sep 2018	1	0.947	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2019	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2018	Sep 2019	2	0.978	Υ		
Antenna Equipment Unit (AEU) Transformer <sup>(†)</sup>		2020	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2019	Sep 2020	2	0.869	N		
COBRA DANE Transmitter Group Replacement <sup>(†)</sup>		2018	Raytheon / Washington, D.C.	C / IDIQ	MDA, Huntsville, AL	Apr 2018	Apr 2019	1	11.000	Υ		
COBRA DANE Transmitter Group Replacement <sup>(†)</sup>		2019	Raytheon / Washington, D.C.	C / IDIQ	MDA, Huntsville, AL	Jun 2019	Jun 2020	1	8.000	Υ		
Cooling Equipment Unit (CEU) <sup>(†)</sup>		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	7.800	Υ		
Cooling Equipment Unit (CEU) <sup>(†)</sup>		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	7.668	Υ		
Cooling Equipment Unit (CEU) - 1 <sup>(†)</sup>		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	6.802	Υ		
Cooling Equipment Unit (CEU) - $2^{(\dagger)}$		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	6.802	Υ		
Critical Spares <sup>(†)</sup>		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	May 2014	May 2015	1	14.361	Υ		
Critical Spares <sup>(†)</sup>		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Dec 2015	1	11.391	Υ		

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 6 of 30

P-1 Line #33

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title:

0300D / 01 / 17 MD11 / BMDS Sensors

**Date:** May 2021

Item Number / Title [DODIC]:

BMDS AN/TPY-2 Radars

3000701717			1'	MD111 BIMDS Sen	3013			DIVID	S AIN/TPY	- <u>Z I (a</u>	uai 3	1
Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	<b>Qty</b> (Each)	Unit Cost	Specs Avail Now?	Revision	RFP Issu Date
Critical Spares <sup>(†)</sup>		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Dec 2016	1	3.475	Y		
Electronic Equipment Unit (EEU) <sup>(†)</sup>		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	23.400	Y		
Electronic Equipment Unit (EEU) <sup>(†)</sup>		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	23.000	Y		
Electronic Equipment Unit (EEU) - 1 <sup>(†)</sup>		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	20.220	Y		
Electronic Equipment Unit (EEU) - $2^{(\dagger)}$		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	20.220	Y		
Electronic Equipment Unit (EEU) Modification Kit <sup>(†)</sup>		2015	Raytheon / Woburn, MA	SS / FFP	М	Dec 2014	Jun 2015	3	2.795	Y		
Electronic Equipment Unit (EEU) Modification Kit <sup>(†)</sup>		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Mar 2016	Sep 2016	1	3.183	Y		
Electronic Equipment Unit (EEU) Modification Kit <sup>(†)</sup>		2017	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2016	Jun 2017	1	3.134	Y		
Float Antenna Equipment Unit (AEU) <sup>(†)</sup>		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Jun 2018	1	62.019	Y		
Float Cooling Equipment Unit (CEU) <sup>(†)</sup>		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	1	7.140	Y		
Float Cooling Equipment Unit (CEU) <sup>(†)</sup>		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Sep 2014	Dec 2015	1	18.721	Y		
Float Electronic Equipment Unit (EEU) <sup>(†)</sup>		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	1	20.260	Y		
Float Electronic Equipment Unit (EEU) <sup>(†)</sup>		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Sep 2014	Sep 2016	1	22.718	Y		
Forward-Based Mode Prime Power Units (PPU) <sup>(†)</sup>		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) <sup>(†)</sup>		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	15.600	Y		
Prime Power Unit (PPUs - 2 each radar system) <sup>(†)</sup>		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 <sup>(†)</sup>		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 <sup>(†)</sup>		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	13.895	Y		

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 7 of 30

P-1 Line #33

Exhibit P-5a, Procurement History and Planning: PB 2022	Missile Defense Agency	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
0300D / 01 / 17	MD11 / BMDS Sensors	BMDS AN/TPY-2 Radars

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Cost Elements	0	ГІ	Contractor and Location	Fulluling Vernicle	Location of PCO	Date	Delivery	(Each)	(\$ M)	INOW:	Available	Date
Transmit/Receive Integrated Microwave Module (TRIMMs) <sup>(†)</sup>		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Jun 2016	1	59.840	Y		
Antenna Equipment Unit (AEU) Radome - Raytheon <sup>(†)</sup>		2020	Raytheon / Huntsville	C/BA	Huntsville, AL	Jan 2020	Sep 2020	1	1.525	N		May 2019
CEU Fan Motors - Raytheon <sup>(†)</sup>		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Dec 2019	Sep 2020	24	0.122	N		Oct 2019
Contractor Certification <sup>(†)</sup>		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Dec 2015	1	2.862	Υ		
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon <sup>(†)</sup>		2020	Rayteon / Huntsville	C/BA	Huntsville, AL	Feb 2020	Sep 2020	1	0.242	N		Oct 2019
Retrofit Firewall Kits - Raytheon <sup>(†)</sup>		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Dec 2019	Sep 2020	37	0.092	N		Nov 2019

<sup>(†)</sup> indicates the presence of a P-21

Remarks: N/A

															1 1 1 2														
Exhibit F	P-21, Pr	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
<b>Appropr</b> 0300D / 0	<b>iation</b> / 01 / 17	Budge	et Acti	ivity /	Budg	get Su	ıb Ac	tivity	:				Num Sen	iber / sors	Title:									nber / N/TPY			OIC]:		
		lements					,			=:																			В
	(Units	in Each)	ACCEPT							Fiscal Y	ear 2010		Calandar	Year 201	10							Fiscal Y		ndar Yea	- 2011				A L
M			PRIOR	BAL			_				_					_				. [			_	1				_	Α
O F C R O # FY	SERVICE	PROC QTY	TO 1 OCT 2009	AS OF 1 OCT	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	N N N	J U L	U G	S E P	N C E
AN/TPY-2 Ma	jor End Item	CN Kits - 1									,	,					,	,		,									
1 2022	MDA	1	0	1																									
AN/TPY-2 Sec	cure Servers	- Lot																											
2 2019	MDA	2	0	2																									
Antenna Equip		AEU)				_								,															
3 2010		1	0										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
3 2012		2	0	2																									$oxed{oxed}$
Antenna Equip		AEU) - 1		_																									
3 2013		1	0	1																									$\perp$
Antenna Equip		AEU) - 2		_																									_
3 2013		1	0	1																									
Antenna Equip	` `																												
4 2015		3	0																										<del> </del>
4 2016 4 2017		1	0	_																									-
4 2017		1	0	_																			-						-
4 2019		2	0			-																							$\vdash$
4 2020		2	0														-						-						$\vdash$
COBRA DANE																													
5 2018		1	0	_																									
5 2019		1	0	_																									
Cooling Equip		EU)																											
6 2010		1	0	1									Α -	-	l -	-	-	-	-	- 1	-	-	-	-	-	-	-	-	
6 2012	MDA	2	0	2									1		1					11						ļ			
Cooling Equip	ment Unit (C	EU) - 1																											
6 2013	MDA	1	0	1																									
Cooling Equip	ment Unit (C	EU) - 2																											
6 2013	MDA	1	0	1																									
Critical Spares	s																												
7 2014		1	0	1																									
7 2015		1	0																										
7 2016		1	0	1																									
Electronic Equ	uipment Unit	(EEU)																-						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	N U J	J U L	A U G	S E P	
								iN.		т.	ı.K	I	IN		J	r		٧		14	٥	Α.	Α.	I	N		J		J

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 9 of 30

P-1 Line #33

Exh	ibit	P-21, Pr	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
		oriation / / 01 / 17	Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:		<b>Line</b> 11 / E				Title:										<b>Title</b> -2 Ra	[DOD dars	DIC]:		
			lements in Each)								Fiscal V	ear 2010											Fiscal V	ear 2011						В
		(Onits	III Eacii)	ACCEPT							riscai i	eai 2010		^alondar	Year 201	10							FISCAI I		ndar Yea	2011				Α .
М				PRIOR	BAL									Jaieriuai	Teal 20									Calei		2011				Ā
0 F C R 0 #		SERVICE	PROC QTY	TO 1 OCT 2009	DUE AS OF 1 OCT	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	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	N U J	J U L	A U G	S E P	N C
8	2010	0 MDA	1	0	1									Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	2012	2 MDA	2	0	2																									
_		quipment Unit (	(EEU) - 1		, ,																									_
		3 MDA	1	0	1																									L
		quipment Unit (	(EEU) - 2		, ,																									
		3 MDA	1	0																										$oxed{oxed}$
_		quipment Unit (	· · · · · · · · · · · · · · · · · · ·	ification Ki																										
_		5 MDA	3	0																										_
_		6 MDA	1	0																										
		7 MDA	1	0	1																									
_		na Equipment U	Jnit (AEU)		1																									
		6 MDA	1	0	1																									
_		g Equipment U	nit (CEU)		1																									
_	-	2 MDA	1	0																										<u> </u>
		4 MDA	1	0	1																									
_		onic Equipment	1																											
-		2 MDA	1	0																										_
		4 MDA	1	0																										
_		sed Mode Prim	_	_ ` /																										
		3 MDA	4																											
_		er Unit (PPUs - :	_		_										1											ı				
_		0 MDA	1	0										Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
		2 MDA	2	0																										_
		er Unit (PPUs - :			1																									
	<u> </u>	3 MDA	1																											
		er Unit (PPUs - 2	2 each rada	ar system) 0	1																									
		3   MDA eceive Integrate	d Missesses			`																								_
_		5 MDA	_		ì	)																								
			TU\ Dada																											_
		uipment Unit (A	(EU) Rador	ne - Raytr																										
		otors - Raytheo			1																									
_		0 MDA	on 24	0	24																									
	2020	0 INDA	24			0	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Λ	М	J	J	Α	s	
						C T	0 V	E	A N	E B	A R	P R	A Y	U	U	U	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U	U L	U G	E P	

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 10 of 30

P-1 Line #33

										UN	NCLA	1551	FIEL	)													
Exhibit P-21, Pro	oduction	Schedu	le: P	B 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
<b>Appropriation</b> / 0300D / 01 / 17	Budget A	ctivity /	Bud	get S	ub Ac	tivity	<b>'</b> :		<b>Line</b> 11 / E				Title	1								nber/ N/TPY					
	lements in Each)							Fiscal Y	ear 2010	)										Fiscal Y	/ear 2011						В
M	ACCE									(	Calendar	Year 20	10			,	,				Caler	ndar Year	r <b>2011</b>			,	Ļ
O F C R O # FY SERVICE	PRIC TO PROC OC QTY 200	1 DUE T AS OF		N O V	D E C	J A N	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	N C E
Contractor Certification																											
18 2015 MDA	1	0 1																									
Reference Horn Switch Ass	sembly (RHSA) R	etrofit Kits - F	Raytheor	1																							
19 2020 MDA	1	0 1																									
Retrofit Firewall Kits - Rayth	neon																										
20 2020 MDA	37	0 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 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	N U J	U U	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2022 Missile Defense Agency  Date: May 2021		
Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DOI 0300D / 01 / 17 MD11 / BMDS Sensors BMDS AN/TPY-2 Radars	DIC]:	
Cost Elements		В
(Units in Each)         Fiscal Year 2012         Fiscal Year 2013           ACCEPT         Calendar Year 2012         Calendar Year 2013		A L
M PRIOR BAL		_ A
O F	A S U E G P	N C E
AN/TPY-2 Major End Item CN Kits - 1		
1 2022 MDA 1 0 1		
AN/TPY-2 Secure Servers - Lot		
2 2019 MDA 2 0 2		
Antenna Equipment Unit (AEU)		
3 2010 MDA 1 0 1 1		
3 2012 MDA 2 0 2 A		
Antenna Equipment Unit (AEU) - 1		
3   2013   MDA   1   0   1     A -   -   -   -   -   -   -   -   -		
Antenna Equipment Unit (AEU) - 2		
3 2013 MDA 1 0 1		
Antenna Equipment Unit (AEU) Transformer		
4 2015 MDA 3 0 3		
4 2016 MDA 1 0 1		┷
4 2017 MDA 1 0 1		
4 2018 MDA 1 0 1		4
4 2019 MDA 2 0 2		$\bot$
4 2020 MDA 2 0 2		
COBRA DANE Transmitter Group Replacement		_
5 2018 MDA 1 0 1		₩
5 2019 MDA 1 0 1		
Cooling Equipment Unit (CEU)		_
6 2010 MDA		+
Cooling Equipment Unit (CEU) - 1		-
6 2013 MDA 1 0 1 A		
Cooling Equipment Unit (CEU) - 2		_
Critical Spares		
7 2014 MDA 1 0 1		$\overline{}$
7 2015 MDA 1 0 1		+
7 2016 MDA 1 0 1		+
Electronic Equipment Unit (EEU)		
O N D J F M A M J J A S O N D J F M A M J J	A S	
C O E A E A P A U U U E C O E A E A P A U U U T T V C N B R R Y N L G P T V C N B R R Y N L	U E G P	
	•	

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 12 of 30

												<b>U</b> .				•													
Exhibit	t P-21, Pr	roduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
<b>Appro</b> 0300D	<b>priation</b> / / 01 / 17	Budg	et Acti	vity /	Budg	get Si	ub Ac	tivity	:			Item BMDS			Title:							Item BMD	Num S AN	nber / I/TPY	<b>Title</b> -2 Ra	[DOE dars	IC]:		
,		Elements																											В
	(Units	s in Each)	1.00===	.1			_	1		Fiscal Y	ear 2012											Fiscal Y							Α
м			ACCEPT PRIOR	BAL			1						alendar	Year 201	2			T	1				Caler	dar Year	2013				L A
O F C R O # F	Y SERVICE	PROC QTY	TO 1 OCT 2011	AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J 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	J L	A U G	S E P	N C E
8 20	10 MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1										0
8 20	12 MDA	2	2 0	2			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Electronic I	Equipment Unit	(EEU) - 1																											
8 20	13 MDA	1	0	1															Α -	-	-	-	-	-	-	-	-	-	1
Electronic I	Equipment Unit	(EEU) - 2																											
8 20	13 MDA	1	0	1																									1
Electronic I	Equipment Unit	(EEU) Mo	dification K	it																									
9 20	15 MDA	3		3																									3
	16 MDA	1																											1
	17 MDA	1		1																									1
	nna Equipment	Unit (AEU)																											
	16 MDA	1	0	1																									1
	ing Equipment U	Jnit (CEU)					,					1		,					ı					,					
	12 MDA	1				-	Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	14 MDA	1		1																									1
	tronic Equipmen																												
	12 MDA	1					Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	14 MDA	1																											1
	ased Mode Prin			_	I														T.					1					
	13 MDA	4																	Α -	-	-	-	-	-	-	-	-	-	4
	ver Unit (PPUs -	_		_		1	1					1																	
	10 MDA	1				-	-	-	-	-	-	-	-	-	-	-	-	-	1										0
	12 MDA	2					Α -	-	-	-	-	-	_	-		-	-	-	-	-	-	-	-	-	-	-	-	-	2
	ver Unit (PPUs -			1	<u> </u>																			1				1	
	13 MDA ver Unit (PPUs -	2																-	Α -	-	-	-	-	-	-	-	-	- ]	1
	13 MDA	2 each rac	oar system)		1																							1	
	Receive Integrate	od Microws			·)																								'
	15 MDA	1	_	1	P)																								1
	quipment Unit (																												
	20 MDA	1	T																										1
	Motors - Raythe																												
	20 MDA	24	0	24																									24
	1		1 0		0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	s	
					C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 13 of 30

												UN	ICLA	1551	FIEL	)													
Exhib	oit P-21, P	roduc	tion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	se Age	ency											Date	e: Ma	y 202	1				
	opriation D / 01 / 17	/ Budg	jet Act	ivity /	Bud	get S	ub Ad	ctivity	<b>'</b> :			Item BMDS			Title:											[DOI			
		Elements s in Each)								Fiscal Y	ear 2012	2										Fiscal Y	ear 2013						В
			ACCEP1									(	Calendar	Year 20	12				_				Caler	dar Year	2013				L
O F C R O #	FY SERVIC	PROC	PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	N C E
Contract	tor Certification																												
18 2	2015 MDA		1 0	1																									
Reference	ce Horn Switch A	ssembly (F	RHSA) Retro	ofit Kits - F	Raytheon																								
19 2	2020 MDA		1 0	1																									
Retrofit F	Firewall Kits - Ra	ytheon																											
20 2	2020 MDA	3	7 0	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	D D	A U G	S E P	

Exhibit F	P-21, Pr	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
<b>Appropr</b> 0300D / 0		Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:			Item BMDS			Title:									nber /		[DOI	DIC]:		
		lements in Each)								Figural V	ear 2014											Fiscal Y	'aar 2015						
	(Onits	III Eacii)	ACCEPT							riscai i	eai 2014		alendar	Year 201	14							riscai i		ndar Yea	2015				1
м			PRIOR	BAL	_								aieridai			_	_		_	. [									
F   F   FY   FY	SERVICE	PROC QTY	TO 1 OCT 2013	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	N U J	U L	A U G	S E P	
N/TPY-2 Maj	jor End Item	CN Kits - 1																											
1 2022	MDA	1	0	1																									
N/TPY-2 Sec	cure Servers	- Lot																											
2 2019	MDA	2	0	2																								Ĭ	<u> </u>
ntenna Equip	pment Unit (A	EU)																											
3 2010	MDA	1	1	0																								ĺ	<u> </u>
3 2012	MDA	2	0	2	-	-	-	-	-	-	-	-	2																
ntenna Equip	pment Unit (A	EU) - 1																											
3 2013	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1				
ntenna Equip	oment Unit (A	EU) - 2																											
3 2013	MDA	1	0	1			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ntenna Equip	pment Unit (A	EU) Trans	former																										
4 2015	MDA	3	0	3															Α -	-	-	-	-	-	-	-	-	3	
4 2016	MDA	1	0	1																									
4 2017	MDA	1	0	1																									
4 2018	MDA	1	0	1																									
4 2019	MDA	2	0	2																									
4 2020	MDA	2	0	2																									
OBRA DANE	E Transmitter	Group Rep	olacement																										
5 2018		1	0	1																									
5 2019	MDA	1	0	1																									Ш
Cooling Equip	ment Unit (Cl	EU)																											
6 2010		1	1											,															$\vdash$
6 2012		2	0	2	-	-	-	-	-	-	-	-	2																
Cooling Equip		EU) - 1					,																						
6 2013		1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1				
	ment Unit (Cl	<del>, '</del>		,			1																	1					
6 2013	MDA	1	0	1			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ritical Spares																												-	
7 2014		1	0						-			Α -	-	-	-	-	-	-	-	-	-	-	-	1					
7 2015		1	0																Α -	-	-	-	-	-	-	-	-	-	_
7 2016		1	0	1																									
Electronic Equ	uipment Unit (	(EEU)															-	1		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	N N	J 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	N U J	J L	A U G	S E P	
					'		·	i/4				- 1	ı¥		<u> </u>	r	•	٧		14	ں	Λ.	Λ.		l M		3	Р .	i

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 15 of 30

														1 166														
Exhibit P-21, F	roduct	ion Sc	hedu	le: PE	202	2 Mis	sile D	efens	e Age	ency												e: Ma	•					
Appropriation 0300D / 01 / 17		et Act	ivity /	Budg	jet Si	ub Ac	tivity	:		<b>Line</b> 11 / E				Title:								<b>Nun</b> OS AN				DIC]:		
	t Elements								=:																			В
(Un	its in Each)	ACCEPT							Fiscal Y	ear 2014		`alandar	Year 201	14							Fiscal Y	ear 2015	ndar Yea	- 201E			_	A L
м		PRIOR	BAL																				1				1	Α
O F C R SERVICE	PROC E QTY	TO 1 OCT 2013	AS OF 1 OCT	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	n n	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	U L	U G	S E P	N C E
8 2010 MDA	1	1	0																									
8 2012 MDA	2	C	2	-	-	-	-	-	-	-	-	2															_	
Electronic Equipment U	nit (EEU) - 1					,							,									,					_	
8 2013 MDA	1	C	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1				
Electronic Equipment U	nit (EEU) - 2	,																										
8 2013 MDA	1	C	1			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Electronic Equipment U	nit (EEU) Mo	dification K	it																									
9 2015 MDA	3																	Α -	-	-	-	-	-	3				
9 2016 MDA	1																										_	
9 2017 MDA	1		1																									
Float Antenna Equipmen	t Unit (AEU)																											
10 2016 MDA	1	C	1																								-	<u> </u>
Float Cooling Equipmen	Unit (CEU)					,							,															
11 2012 MDA	1			-	-	-	-	-	-	-	-	1									1	1	1			1		
11 2014 MDA	1		1												A -	-	-	-	-	-	-	-	-	-	-	-	-	
Float Electronic Equipm		1	T			1			1		1																_	
12 2012 MDA	1			-	-	-	-	-	-	-	-	1															,	
12 2014 MDA	1	C													A -	-	-	-	-	-	-	-	-	-	-	-	-	
Forward-Based Mode P		_ ` ′	_			1	,																					
13 2013 MDA	4				-	-	-	-		-	-	-	-	-	-	-	-	3										
Prime Power Unit (PPU:																												
14 2010 MDA	1					1							1															
14 2012 MDA	2				-	-	-	-		-	-	2																
Prime Power Unit (PPU:		1			1	1																1	1					
14 2013 MDA	1			_	-	-	-	-		-	-	-	_	-	-	-	-	-	-	-	-	-	-	1				
Prime Power Unit (PPU:	s - 2 each rac			1		1		1	1	ı	1		1	I							ı	1	1			1		
14 2013 MDA	1	C				Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Transmit/Receive Integr	ated Microwa	_	-	s) 																		T	T	ı		T	1	
15 2015 MDA	(451) D	0																Α -	-	-	-	-	-	-	-	-	-	
Antenna Equipment Uni			_																									
16 2020 MDA CEU Fan Motors - Rayti	1	С	1																									
			0.4																									
17 2020 MDA	24	C	24		14				p.a		p.a			Ι	_	_	N.	г	,		p.a	Α				Α.		2
				O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	n T	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	P R	A Y	U N	U L	U G	S E P	
					*	*	*	*	*	,	*	*	•	*								*	*			*		

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 16 of 30

Exh	ibit F	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
	-	<b>iation</b> / 01 / 17	Budg	et Acti	vity /	Budç	get S	ub Ac	tivity	<b>'</b> :		Line 11 / E				Title:										<b>Title</b> ′-2 Ra		DIC]:		
			lements in Each)								Fiscal Y	ear 2014	ļ										Fiscal Y	ear 2015						В
				ACCEPT				_		_			(	Calendar	Year 20	4				_				Caler	ıdar Year	2015				] [
O F R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J J	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	N C E
Contra	actor Ce	rtification		·																										
18	2015	MDA	1	0	1															Α -	-	-	-	-	-	-	-	-	-	1
Refere	ence Ho	rn Switch Ass	embly (R	HSA) Retro	fit Kits - F	Raytheon	1														'									
19	2020	MDA	1	0	1																									
Retrof	it Firewa	all Kits - Raytl	neon																											
20	2020	MDA	37	0	37																									
	*		•		*	0	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	Ŋ	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	N N	Ŋ	A U G	S E P	

Exhibit F	P-21, Pr	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
<b>Appropr</b> 0300D / 0		Budge	et Acti	vity /	Budg	jet Su	ıb Ac	tivity	:	- 1	<b>Line</b> 11 / E			<b>ber</b> /	Title:									nber / N/TPY		[DOD dars	DIC]:		
		lements in Each)								Fiscal Y	ear 2016											Fiscal Y	ear 2017						
	(Onits	III Lacily	ACCEPT	-			-			i iocai i	2010		alendar	Year 201	16							1 13001 1		ndar Year	2017				1 1
M			PRIOR	BAL	_		_		_										_	. [									1
F   F   FY   FY	SERVICE	PROC QTY	TO 1 OCT 2015	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	J U N	U L	A U G	S E P	
N/TPY-2 Ma	jor End Item	CN Kits - 1																											
1 2022	MDA	1	0	1																									
N/TPY-2 Se	cure Servers	- Lot	'																										
2 2019	MDA	2	0	2																									
ntenna Equi	pment Unit (A	AEU)																											
3 2010	MDA	1	1	0																									
3 2012	MDA	2	2	0																									
ntenna Equi	pment Unit (A	NEU) - 1																											
3 2013	MDA	1	1	0																									
ntenna Equi	pment Unit (A	AEU) - 2																											
3 2013	MDA	1	0	1	-	-	-	-	-	-		-	1																
ntenna Equi	pment Unit (A	EU) Trans	former																										
4 2015	MDA	3	3	0																									
4 2016	MDA	1	0	1			Α -	-	-	-	-	-	-	-	-	1													
4 2017	MDA	1	0	1															Α -	-	-	-	-	-	-	-	-	1	
4 2018	MDA	1	0	1																									
4 2019	MDA	2	0	2																									
4 2020	MDA	2	0	2																									
OBRA DANI	E Transmitter	Group Rep	placement																										
5 2018	MDA	1	0	1																									
5 2019	MDA	1	0	1																									
Cooling Equip	ment Unit (C	EU)																											
6 2010		1	1																										
6 2012		2	2	0																									L
	ment Unit (C	EU) - 1		,																									
6 2013		1	1	0																									L
Cooling Equip		_		1				1																					_
6 2013		1	0	1	-	-	-	-	-	-	-	-	1																$\bot$
Critical Spare																													
7 2014		1						7																					
7 2015		1			-	-	1						1			, ,	1	г											
7 2016		1	0	1			Α -	-	-	-	-	-	-	-	-	-	-	-	1										
Electronic Equ	uipment Unit	(EEU)					1 .						1	1									1			,			
					C	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J 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	n n	A U G	S E P	
					Т	V	Ü	N	В	K	K	Y	N	L	G	Р	ı	V	Ü	N	В	К	K	Y	N	L	G	Р	]

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 18 of 30

Ex	hib	it P-	21, Pr	oduct	ion Sc	hedu	le: PE	3 202	22 Mis	ssile D	efens	se Ag	ency											Date	e: Ma	y 202	21				
<b>Ap</b> 030	pro	pria 101	ation / 1 / 17	Budge	et Acti	ivity /	Budç	get S	Sub A	ctivity	<b>/</b> :			Item BMDS			Title:							Item BMI	<b>Nun</b> OS Al	nber N/TP\	/ <b>Title</b> /-2 Ra	[DOI adars	DIC]:		
	,			lements																											В
$\overline{}$			(Units	in Each)	ACCEPT						_	Fiscal \	ear 201		Salamda.	r Year 20	146				_	1	_	Fiscal Y	ear 2017	ndar Yea	2047				A L
N					PRIOR	BAL									Jaierida	r Year 20	10								Cale	luar rea	1 2017				Ā
O F	R			PROC	TO 1 OCT	AS OF	O C	N O	D E	J A	F E	M A	P	M A	U J	J U	U	S E	0	N O	D E	J A	F E	M A	A P	M A	n n	J U	U	S E	N C
0 #	_	Y :	SERVICE	QTY 1	2015	1 OCT	Т	V	С	N	В	R	R	Υ	N	L	G	Р	Т	V	С	N	В	R	R	Y	N	L	G	Р	E(
-	_	012 N		2	2		1																							}	
			ment Unit (			-																									
		013 N		1	1	0																									(
Elec	tronic	Equip	ment Unit (	(EEU) - 2																											
7	8 20	013 N	MDA	1	0	1	-	-	-	-	-	T -	-	-	1																
Elec	tronic	Equip	ment Unit (	(EEU) Mod	dification K	it																									
	9 20	015 N	MDA	3	3	0																									(
,	9 20	016 N	MDA	1	0	1						Α -	-	-	-	-	-	1												Ī	(
,	9 20	017 N	MDA	1	0	1															Α -	-	-	-	-	-	1				(
Floa	t Ante	enna E	quipment L	Jnit (AEU)																											
1	0 20	016 N	MDA	1	0	1			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Floa	t Coo	ling Eq	quipment U	nit (CEU)																											
_	_	)12 N		1						_																					(
		014 N		1		1	-	-		1																					(
			Equipment		-																										
_		012 N		1			-		1					1	1	1			1												- (
		014 N		1			-	_	-	-	-		-	-	-	-	-	1													
	_		Mode Prim				1																								
		013 N		4																											
	_		nit (PPUs - :				ı																								
-	_	010 N		1		-	-																							}	(
		012 N	nit (PPUs - 2	2																											(
		on D13 N		2 each rad		1	I																							1	
			nit (PPUs - 2																												
		013 N		1	ai system)		Ι.	Ι -	Τ.	Τ -	Τ.	Τ -	Ι.	_	1 1		_							,							
			ve Integrate	d Microwa											'	'															
	_	015 N		1		Ť	_	_	_	_	Τ.	Τ.	_	T -	1																
			nent Unit (A	EU) Rado	me - Rayth	neon																									
	_	020 N		1																											
			s - Raytheo	n																											
1	7 20	020 N	MDA	24	0	24																									24
				1			0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	
							C	O V	E	A N	E B	A R	P R	A Y	U N	L	U	E P	C T	O V	E	A N	E B	A R	P R	A	U N	U	U G	E P	
								· •		14		N	I N	<u>'</u>	IN			-	'	٧		14		, N		'	14		3		

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 19 of 30

														U١	ICL/	ASSI	FIEC	)													
Ex	hib	it P	9-21, Pro	duct	ion Sc	chedu	le: PE	3 202	22 Mis	sile D	efens	se Ag	ency											Date	e: Ma	y 202	1				
			i <b>ation / E</b> )1 / 17	Budg	et Act	ivity /	Budg	get S	ub A	ctivity	<b>/</b> :	1 -	<b>1 Line</b> 011 / E				Title:											[DOE adars			
			Cost El (Units ii								,	Fiscal `	Year 2016	6										Fiscal Y	ear 2017						В
					ACCEPT									(	Calendar	Year 20	16								Caler	ndar Year	2017				Ĺ
0 0 0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N J	J U	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	гсс	A U G	S E P	A N C E
Co	ntract	tor Cer	tification						·	<u>'</u>									,												
	18 2	2015	MDA	1	C	1	-	-	1																						(
Ref	erenc	ce Hor	n Switch Asse	embly (R	HSA) Retro	ofit Kits - R	Raytheon																								
	19 2	2020	MDA	1	C	1																									
Ret	rofit F	Firewa	ll Kits - Rayth	eon																											
	20 2	2020	MDA	37	· c	37																									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	N N	n n	A U G	S E P	

Appropriation / Budget Ad 0300D / 01 / 17 Cost Elements (Units in Each)	tivity /	Bud	get Sı	ub Ac	·+i\/i+\/		D 4												+							
(Units in Each)				u. , (0	LIVILY	•	- 1	<b>Line</b> 11 / B				Title:									nber/ N/TPY			OIC]:		
							Fiscal Y	ear 2018											Fiscal Y	ear 2019						Е
ACCF	РТ		_	_			1100011		С	alendar	Year 201	8							1100011		ndar Yea	r 2019				L
M PRIC	R BAL					_							_	_		_	. [								_	Δ
O F TO PROC OC' O # FY SERVICE QTY 201	AS OF		N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	n T	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	U N	n n	A U G	S E P	C
AN/TPY-2 Major End Item CN Kits - 1	·																									
1 2022 MDA 1	0 1																									
AN/TPY-2 Secure Servers - Lot			_																,							
2 2019 MDA 2	0 2	2																Α -	-	-	-	-	-	-	-	
Antenna Equipment Unit (AEU)																										
3 2010 MDA 1	1 0																									<u> </u>
3 2012 MDA 2	2 0																									
Antenna Equipment Unit (AEU) - 1		.																								
3 2013 MDA 1	1 0	)																								
Antenna Equipment Unit (AEU) - 2	1 0	.T	_																							
3 2013 MDA 1	1 0	)																								_
Antenna Equipment Unit (AEU) Transformer  4 2015 MDA 3	3 0	, I																								
4 2016 MDA 1	3 0 1 0	-																								$\vdash$
4 2017 MDA 1	1 0	4																								_
4 2018 MDA 1	0 1	_		Α -		-	_	_	_	-	_	_	1												ļ	
4 2019 MDA 2	0 2			, , ,									- 1	-		Α -	-		-	-	_	_	-	_	2	
4 2020 MDA 2	0 2															,,									_	$\overline{}$
COBRA DANE Transmitter Group Replacem																										
5 2018 MDA 1	0 1	П						Α -	-	-	-	-	-	-	- 1	-	-	-	-	1						
5 2019 MDA 1	0 1		_																			Α -	-	-	-	
Cooling Equipment Unit (CEU)			_																							
6 2010 MDA 1	1 0	)																								$\Box$
6 2012 MDA 2	2 0	5																								
Cooling Equipment Unit (CEU) - 1	<u> </u>																									
6 2013 MDA 1	1 0																									
Cooling Equipment Unit (CEU) - 2																										
6 2013 MDA 1	1 0																									
Critical Spares																										
7 2014 MDA 1	1 0	_																								_
7 2015 MDA 1	1 0	_																							ļ	_
7 2016 MDA 1	1 0																									
Electronic Equipment Unit (EEU)																			T -							
		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	n n	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	n n	A U G	S E P	

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 21 of 30

Exhibit I	P-21, Pr	oducti	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency		_									Dat	e: Ma	y 202	1				
<b>Appropi</b> 0300D /	riation / 01 / 17	Budge	et Acti	ivity /	Budg	get Si	ub Ad	ctivity	:		<b>Line</b> 11 / E			ber / sors	Title:			-				Iten BMI	<b>Nun</b> OS AN	nber / N/TPY	<b>Title</b> ′-2 Ra	[DOI adars	DIC]:		
		lements								Firesty	0040			,								Fi1)	/ 0040						В
	(Units	in Each)	ACCEPT						_	Fiscal Y	ear 2018		`alendar	Year 201	18							Fiscal	ear 2019	ndar Yea	r 2019				A L
M			PRIOR	BAL		T				T						_		T	_			T	T			Ι.			A
O F C R O # FY	SERVICE	PROC QTY	TO 1 OCT 2017	AS OF 1 OCT	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	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	N N N	U L	U G	S E P	N C E
8 2010	MDA	1	1	0																				•					
8 2012		2	2	0																									
	uipment Unit (	1	T.		1																							_	
8 2013		1	1	0																									
	uipment Unit (	(EEU) - 2	1	T -	1																								
8 2013		1 (EEL) Mark	1																										
9 2015	uipment Unit (	(EEU) Mod		1	I																								T
9 2016		1			4																								
9 2017		1	1		-																								
	a Equipment U																												
10 2016		1	0	1	Ι.	Ι.	_	Τ.	_	_	_	_	1															_	
	Equipment U	nit (CEU)																											
11 2012		1	1	0																									1
11 2014	MDA	1	1	0	1																								
Float Electron	nic Equipment	Unit (EEU	)																										
12 2012	MDA	1	1	0																									
12 2014	MDA	1	1	0																									
Forward-Base	ed Mode Prim	e Power U	nits (PPU)																										
13 2013	MDA	4	3	1																									
Prime Power	Unit (PPUs - 2	2 each rad	ar system)	)																									
14 2010	MDA	1	1		4																								
14 2012		2																										_	
	Unit (PPUs - 2	2 each rad	ar system)			_																						_	
14 2013		1																											
	Unit (PPUs - 2	2 each rad	ar system)		1																								
14 2013		1	1	0																								_	
15 2015	ceive Integrate	d Microwa	ve Module	0 (TRIMINS	-																								
	ipment Unit (A	FLI) Rado	me - Ravth																										
16 2020	-	1		_																									
	tors - Raytheo			'																									
17 2020		24	0	24																									2
	<u>.</u>				0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	s	<del></del>
					C T	0 V	E	A N	E B	A R	P R	A Y	U N	U	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	
					'_	V	L	IN	Ь	K	K	T	N		G	P	'	V	L	N		K	ĸ	T	N	_ L	G	P	╛

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED Page 22 of 30

													UN	ICLA	ASSI	FIEC	)													
Exh	ibit	P-21, Pr	oduct	tion Sc	hedu	le: PE	3 202	2 Mis	sile D	efen	se Age	ency											Date	e: Ma	y 202	21				
		<b>riation</b> / 01 / 17	Budg	jet Act	ivity /	Budg	get S	ub Ac	tivity	<b>'</b> :		<b>Line</b> 11 / E			<b>ber</b> /	Title:	1										e [DO Radars	DIC]:		
			lements in Each)					,			Fiscal Y	ear 2018											Fiscal Y	/ear 2019	)					В
				ACCEPT									(	Calendar	Year 20	18								Cale	ndar Yea	ar 2019				L
0 F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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 L	A U G	S E P	N C E
Contra	actor C	ertification																												
18	2015	MDA	1	1 1	0																									(
Refere	ence H	orn Switch As	sembly (R	RHSA) Retro	ofit Kits - R	aytheon																								
19	2020	MDA	1	1 0	) 1																									1
Retrof	it Firew	vall Kits - Rayt	heon																											
20	2020	MDA	37	7 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	U L	A U G	S E P	

Exhibit F	P-21, Pr	oducti	on Sc	hedul	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
<b>Appropr</b> 0300D / 0		Budge	et Acti	vity /	Budg	jet Su	ıb Ad	tivity	:		<b>Line</b> 11 / E			ber / sors	Title:									nber / N/TPY			DIC]:		
		lements in Each)						,		Fiscal Y	ear 2020	,										Fiscal Y	ear 2021						E
			ACCEPT				_		-				Calendar	Year 202	20								Caler	ndar Year	2021				1 1
M D F C R D # FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	1 1 0
AN/TPY-2 Ma				1001	•	<u> </u>		14			K	•	IN .			F	•	•		14			, K	· ·	14		-	Г	<u>.</u>
1 2022		1	0	1																									
	cure Servers																												
2 2019		2	0	2	-	-	_	_	_	l -	_	-	-	_	2														
	pment Unit (A		l																										
3 2010		1	1	0																									Т
3 2012		2	2																										
	pment Unit (A																												
3 2013		1	1	0																									Т
	pment Unit (A	EU) - 2																											
3 2013		1	1	0																									Т
	pment Unit (A	EU) Trans	former																										
4 2015		3		0																									Т
4 2016	MDA	1	1	0																									
4 2017	MDA	1	1	0																									
4 2018	MDA	1	1	0																									
4 2019	MDA	2	2	0																									
4 2020	MDA	2	0	2			Α -	-	-	-	-	-	-	-	-	2													
COBRA DANI	E Transmitter	Group Rep	placement					_					_																
5 2018	MDA	1	1	0																									П
5 2019	MDA	1	0	1	-	-	-	-	-	-	-	-	1	]															
Cooling Equip	ment Unit (Cl	EU)	,					•																					
6 2010	MDA	1	1	0																									
6 2012	MDA	2	2	0																									
Cooling Equip	ment Unit (Cl	EU) - 1																											
6 2013	MDA	1	1	0																									
Cooling Equip	ment Unit (Cl	EU) - 2																											
6 2013	MDA	1	1	0																									
Critical Spares	_																												
7 2014		1																											
7 2015		1	1																										L
7 2016		1	1	0																									
Electronic Equ	uipment Unit (	(EEU)																								,			
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	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	J U L	A U G	S E P	
					ı	v	C	N	В	K	K	Y	N	L	G	Ρ	ı	V	C	N	В	К	ĸ	Y	N	L	G	۲	J

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 24 of 30

												•	. • _,																
Exhibit I	P-21, Pr	oducti	on Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Dat	e: Ma	y 202	1				
Appropr 0300D /		Budge	et Acti	vity /	Budg	jet Sı	ub Ac	tivity	:		<b>Line</b> 11 / E			<b>ber</b> /	Title:								<b>Nun</b> OS AN				DIC]:		
		lements								=:													, ,,,,,,						В
	(Units	in Each)	ACCEPT				_			Fiscal Y	ear 2020		`alamda.	Year 202	20							Fiscal \	ear 2021	ndar Yea	- 2024				Α
м			PRIOR	BAL																									L A
0 F C R O # FY	SERVICE	PROC QTY	TO 1 OCT 2019	AS OF 1 OCT	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	N U	U L	U G	S E P	N C E
8 2010	MDA	1	1	0							,																	,	
8 2012		2	2	0																									
	uipment Unit	1																											
8 2013		1	1	0																									
Electronic Eq		(EEU) - 2	Г		ı																								
8 2013		1	1																										
	uipment Unit	1		1	1																							_	
9 2015		3	3		1																								
9 2016		1	1																										
9 2017		1	1	0																									
Float Antenna		Init (AEU)			ı																								
10 2016		1 nit (CELI)	1	0																									
Float Cooling		nit (CEU)		0																									1
11 2012		1	1	_	4																								
Float Electron																												_	
12 2012		1	1	0	<u> </u>																								
12 2014		1	1	_	4																								
	ed Mode Prim		nits (PPU)																										
13 2013	_	4	3																										
	Unit (PPUs - :																												
14 2010	, ,	1	1																										
14 2012	_	2	2	_	-																								
Prime Power	Unit (PPUs - :	2 each rad	ar system)	- 1																								_	
14 2013		1	1	1																								_	
Prime Power	Unit (PPUs - :	2 each rada	ar system)	- 2																									
14 2013	MDA	1	1	0																									
Transmit/Rec	eive Integrate	d Microwa	ve Module	(TRIMMs	5)																								
15 2015	MDA	1	1	0																									
Antenna Equi	ipment Unit (A	EU) Radoi	ne - Rayth	neon																									
16 2020		1	0	1				Α -	-	-	-	-	-	-	-	1													
	tors - Raythed	n																											
17 2020	MDA	24	0	24	ļ		Α -	-	-	-	-	-	-	-	-	24												,	
					O C	N O	D	J	F E	M	A P	M	Ŋ	J	A U	S	0	N O	D E	J	F	M	A P	M	J	n 1	A U	S E	
					T	v	E C	A N	В	A R	R	A Y	N	L	G	E P	C T	v	C	A N	E B	A R	R	A Y	N	L	G	P	
								1							1		I												,

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 25 of 30

t P-21, Pr priation / / 01 / 17 Cost E (Units	Budge								e Age	ency											Date	: May	/ 202	1				
/ 01 / 17 Cost E	lements	t Acti	vity /	Budç	aet Si	ıh Aa																ر ۱۰۰۰ مر	,	•				
					,	ub AC	tivity	:			Item BMDS			Title:									iber /			IC]:		
	ın Each)								Fiscal Y	ear 2020											Fiscal Y	ear 2021						ВА
		ACCEPT									C	alendar	Year 202	:0								Calen	dar Year	2021				Ļ
Y SERVICE	PROC QTY	PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J J	A U G	S E P	100	N O V	D E C	J A N	FEB	M A R	A P R	M A Y	N N C	N N	A U G	S E P	N C E
Certification																												
15 MDA	1	1	0																									
Horn Switch As	embly (RF	SA) Retro	fit Kits - R	Raytheon																								
20 MDA	1	0	1					Α -	-	-	-	-	-	-	1													
ewall Kits - Rayt	neon																											
20 MDA	37	0	37			Α -	-	-	-	-	-	-	-	-	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	J U	A U G	S E P	100	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N O C	J U	A U G	S E P	
1 2 e	Certification  5 MDA  Horn Switch Ass  0 MDA  ewall Kits - Rayth	Y         SERVICE         QTY           Certification         5         MDA         1           Horn Switch Assembly (RH 20         MDA         1           swall Kits - Raytheon         1	SERVICE	SERVICE	SERVICE	N	Representation   PROC   SERVICE   PROC   QTY   2019   DUE   AS OF   C   O   E   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   C   O   E   O   O   O   C   O   E   O   O   E   O   O   E   O   O	TO 1   DUE   O   N   D   J	PROC   OCT   AS OF   C   O   N   D   A   E	Representation   PROC   PROC	PROC   OCT   AS OF   C   O   N   D   J   F   M   A   P	TO 1 OCT   AS OF   C O O   E   A   E   A   P   A   P   A	N	PROC   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   U	TO 1 OCT   AS OF   C O   E   A   E   A   P   A   U   U   U   U   U   U   U   U   U	N	TO 1 OCT   AS OF   C O   N   D   J   F   M   A   M   J   J   J   A   S   O   C   OCT   AS OF   C   O   E   A   E   A   P   A   U   U   U   U   E   C   C   O   E   A   E   A   P   A   U   U   U   U   U   E   C   C   C   C   C   C   C   C   C	TO 1   DUE   O N   D   J   F   M   A   M   J   J   A   S   O   N   D   C   O   N   D   E   A   E   A   P   A   U   U   U   U   E   C   O   O   C   O   O   O   C   O   O	Red	TO 1   DUE   O N D J F M A D J J A S OF C OCT   AS OF C O D E A E A P A U U U U U E C O O E A E A E A P A U U U U U U U U U U U U U U U U U	TO 1   DUE   O N   D   J   F   M   A   M   J   J   A   S   O   N   D   J   F   A   E   A   P   A   U   U   U   U   E   C   O   E   A   E   A   E   A   E   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   A   B   B	TO 1   DUE   O N   D   J   F   M   A   M   J   J   A   S   O   N   D   J   F   M   A   A   P   A   U   U   U   U   E   C   O   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A   E   A	Red	TO 1   DUE   O N D J F M A M A P A U U U U E C O E A E A F A P A U U U U U E C O E A E A E A P A P A U U U U U U U U U U U U U U U	Fraction   Fraction	Red   PROC   TO 1   DUE   O N   D   J   F   M   A   M   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   J   J   J   J   J	TO 1   DUE   O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A M J J J A S O N D J F M A D U U U U U U U U U U U U U U U U U U	TO 1   DUE   O N D J F M A M J J J A S S O N D J F M A P A U U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E E A E A E A P A U U U U U E E C O E E A E A E A P A U U U U U E E C O E E A E E A P A E E A P A U U U U U E E C O E E A E E A E E A P A U U U U U U E E C O E E A E E A E E A P A U U U U U U E E C O E E A E E A E E A E E A E E A E E E E

Column   C													O.	· OL	7001		•															
State											se Age	ency				_							Date	e: Ma	y 202	1						
Thing	Appropriation 0300D / 01 /																															
Column   C																														В		
Name   Proper   Proper   Service   Servic										_																						
Registry   Registry				PRIOR	BAL									Jaieridai	Tear 202									Cale						L		
	CR	RVICE		OCT	AS OF	С	0	E	A	E	Α	P	Α	Ü	Ü	U	E	С	0	E	A	E	Α	P	Α	U	U	U	E	N C E		
Action   Security   Mark	AN/TPY-2 Major En	nd Item C	N Kits - 1									,	,		<u> </u>												,		,			
2   29   MOA   2   2   0   Antonia Equipment Uni (AEU) Antonia Equipment Uni (AEU) 3   2012   MOA   1   1   1   0   3   2012   MOA   2   2   0   Antonia Equipment Uni (AEU) 3   2013   MOA   1   1   0   Antonia Equipment Uni (AEU) 3   2013   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2013   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   Antonia Equipment Uni (AEU) 4   2015   MOA   1   1   0   A   2016   MOA   1   1   0   A   2018   MOA   1   0   A   2018   MOA   1   0   A   2018   MOA   1   0   B   2018   MOA   1	1 2022 MDA	Α	1	0	1	Α -	-	-	-	-	-	1																				
Action Sequence Unit (AEU)    3   2010   MDA																																
3   2012   MDA				2	0																											
3   2012   MDA			EU)		,																											
Anternas Equipment Unit (AEU) - 1 3   2013   MDA																																
3   2013   MDA				2	0																											
Note		•			1																											
3   2013   MDA				1	0																											
Arithma			EU) - 2																											1		
4   2015   MDA			1		0																											
4   2016   MDA					Ι .																											
4   2017   MDA																																
A   2018   MDA					_																											
					-																											
					_																											
S   2018   MDA																																
S   2019   MDA					_																											
Column   C					_																											
Region   R			- 1	•																									-			
Region   Feat   Feat			T	1	0																									1		
6         2013         MDA         1         1         0           Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">			2	2																												
6         2013         MDA         1         1         0           Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">Colspan="8">	Cooling Equipment	t Unit (CE	U) - 1																													
6         2013         MDA         1         1         0           Critical Spares           7         2014         MDA         1         1         0           7         2015         MDA         1         1         0           7         2016         MDA         1         1         0           Electronic Equipment Unit (EEU)		-	1	1	0																									1		
Critical Spares	Cooling Equipment	t Unit (CE	U) - 2																													
7         2014         MDA         1         1         0           7         2015         MDA         1         1         0           7         2016         MDA         1         1         0   Electronic Equipment Unit (EEU)	6 2013 MDA	A	1	1	0																											
7         2015         MDA         1         1         0           7         2016         MDA         1         1         0   Electronic Equipment Unit (EEU)	Critical Spares		1																											_		
7 2016 MDA 1 1 0 Electronic Equipment Unit (EEU)	7 2014 MDA	A	1	1	0																											
Electronic Equipment Unit (EEU)	7 2015 MDA	A	1	1	0																											
	7 2016 MDA	A	1	1	0																											
	Electronic Equipme	ent Unit (E	EEU)					,	,					,	,								,						,	,		
C   O   E   A   E   A   P   A   U   U   U   E   C   O   E   A   E   A   P   A   U   U   U   E								D E	J A	F E	M A		M A				S	0 0 1		D E		F E	M A		M A							
T V C N B R R Y N L G P T V C N B R R Y N L G P						Т	V	С	N	В	R	R	Υ	N	L	G	Р	Т	V	С	N	В	R	R	Y	N	L	G	Р			

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 27 of 30

P-1 Line #33

Ex	hib	it P	-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	22 Mis	sile D	efens	se Age	ency											Date	e: Ma	y 202	21				
<b>A</b> p	opro	pria 0 / 0	<b>ation</b> / 1 / 17	Budg	et Acti	vity /	Bud	get S	ub A	ctivity	<b>'</b> :			Item BMDS		ber / sors	Title:							Item BMI	Nun OS AN	nber N/TP	/ <b>Title</b> Y-2 Ra	[DOI adars	DIC]:		
				Elements		,				,																					В
(Units in Each)								_	Fiscal Year 2022											Fiscal Year 2023											
				PRIOR	OR BAL						Calendar Year 2022									1			Calendar Year 2023								
0 0	R	FY	SERVICE	PROC QTY	TO 1 OCT 2021	AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	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	N C E
		010		1	1	0																					-				(
	8 20	012	MDA	2	2	0																									(
Ele	ctronic	Equip	pment Unit	(EEU) - 1																											,
	8 20	013	MDA	1	1	0																									(
Ele	ctronic	e Equip	pment Unit	(EEU) - 2																											
	8 20	013	MDA	1	1	0																									(
			pment Unit	(EEU) Mod	dification K	t																									
_	9 20			3		0																									(
$\rightarrow$	9 20	_		1			-																								(
	9 20			1	1	0																								-	(
			Equipment l	Unit (AEU)	1																										
	10 20			1	1	0																									(
_			quipment U		T	T																									1
_	11 20	_		1			4																								(
	11 20			1		0																									(
_		_	Equipment		<del>-</del>		Γ																							_	1
_	12 20 12 20			1			4																								
			Mode Prim																												
	13 20			4			Г																								1
			nit (PPUs -																												
	14 20		,	2 each rac	1	1																									
$\vdash$	14 20	-		2		_	-																								
			nit (PPUs -																												
_	14 20			1	<del>, , , , , , , , , , , , , , , , , , , </del>	1		_																							1 (
			nit (PPUs -																												J
	14 20			1	1	0																									
			ve Integrate	ed Microwa	ve Module	(TRIMMs	s)																								
	15 20	_		1	1	0	_			_																					1
Ant	tenna l	Equipr	ment Unit (A	AEU) Rado	me - Rayth	ieon																									
	16 20	020	MDA	1	1	0																									(
CE	U Fan	Motor	rs - Raythed	on																											
	17 20	020	MDA	24	24	0																									(
				•			0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	
							C	0 V	E	A N	E B	A R	P R	A Y	U N	U L	U	E P	C T	O V	E	A N	E B	A R	P R	A	U N	U	U G	E P	
							<u> </u>			· · · ·				· ·								· · ·									J

LI MD11 - BMDS Sensors Missile Defense Agency UNCLASSIFIED
Page 28 of 30

														UN	ICL/	ASSI	FIED	)													
Ex	hib	it P	-21, Pro	duct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Ag	ency											Date	e: Ma	y 202	1				
			ation / E 1 / 17	Budg	et Acti	vity /	Budg	jet S	ub A	ctivity	<b>'</b> :		<b>I Line</b> 011 / E				Title	1										<b>[DO</b> ladars			
			Cost Ele (Units in									Fiscal \	Year 2022	!										Fiscal Y	ear 2023	1					В
					ACCEPT										Calenda	Year 20	22								Cale	ndar Yea	r 2023				ĵ
0 0		FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	n 1	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	N N	J J	A U G	S E P	A N C E
Cor	ntracto	or Cert	ification		,												1								_						
	18 20	015	MDA	1	1	0																									
_			n Switch Asse	embly (RI	HSA) Retro	fit Kits - R	aytheon																								
	19 20			1	1	0																									
			l Kits - Rayth		T	1																									,
	20 20	020	MDA	37	37	0			1	1						1			1	1				1	1						
							O C T	0 V	E C	J A N	F E B	M A R	P R	M A Y	N U J	U L	U G	S E P	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U J	J U L	U G	S E P	
																															_

Exhibit P-21, Production Schedule: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17

P-1 Line Item Number / Title:

MD11 / BMDS Sensors

BMDS AN/TPY-2 Radars

Item Number / Title [DODIC]:

000	00701717			1		06113013			Div	IDO ANTITI	Zitauais	
		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						In	tial			Reo	rder	
Ref #	Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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	C
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	4	2	30	32	0	0	0	0
9	Raytheon - Woburn, MA	1	2	4	2	3	6	9	2	3	6	9
10	Raytheon - Woburn, MA	1	1	4	4	2	30	32	0	0	0	0
11	Raytheon - Woburn, MA	1	1	4	4	2	15	17	0	0	0	0
12	Raytheon - Woburn, MA	1	1	4	4	2	24	26	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	30	32	0	0	0	0
15	Raytheon - Woburn, MA	1	1	4	4	2	18	20	4	2	18	20
16	Raytheon - Huntsville	1	1	1	2	3	6	9	2	3	6	9
17	Raytheon - Huntsville	1	1	24	2	3	6	9	2	3	6	9
18	Raytheon - Woburn, MA	1	1	1	3	2	12	14	3	2	12	14
19	Rayteon - Huntsville	1	1	37	2	3	6	9	2	3	6	9
20	Raytheon - Huntsville	1	1	37	2	3	3	6	2	3	3	6

<sup>&</sup>quot;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 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).

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD14 / SM-3 Block IIA

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready); A

Program Elements for Code B Items: 0604881C, 0603892C

Other Related Program Elements: 0604878C, 0603892C

Line Item MDAP/MAIS Code: 362

Line item MDAI /MAIO Oode: 502												
	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	0	7	9	8	-	8	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget request:	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.000	34.000	35.369	36.915	-	36.915	-	-	-	-	Continuing	Continuing

## **Description:**

In accordance with the Consolidated Appropriations Act 2020, SM-3 Block IIA was transferred to MD14 from MD09 in FY 2020 and beyond. FY 2018 and FY 2019 costs are contained in MD09.

FY 2021 All Up Rounds (AUR) increased from 6 to 9 AURs due to PB21 Congressional Plus up of \$100M.

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 IB improves Sea-Based Weapon Systems mission 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 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 new 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 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.

UNCLASSIFIED
Page 1 of 4

P-1 Line #34

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD14 / SM-3 Block IIA

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready): A

Program Elements for Code B Items: 0604881C, 0603892C

Other Related Program Elements: 0604878C, 0603892C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Seabased BMD SM-3 Blk IIA		Α		0 / 0.000	7 / 238.000	9 / 318.322	8 / 295.322	- / -	8 / 295.322
P-40	Total Gross/Weapon System Cost				0 / 0.000	7 / 238.000	9 / 318.322	8 / 295.322	- 1 -	8 / 295.322

<sup>\*</sup>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

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD14 / SM-3 Block IIA

Date: May 2021

Item Number / Title [DODIC]:
Seabased BMD SM-3 Blk IIA

ID Code (A=Service Ready, B=Not Service Ready): A		М	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	0	7	9	8	-	8
Gross/Weapon System Cost (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	238.000	318.322	295.322	-	295.322
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.000	34.000	35.369	36.915	-	36.915

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

	F	Prior Years	S		FY 2020			FY 2021		F۱	' 2022 Bas	se	F۱	/ 2022 OC	:0	F	/ 2022 Total	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
SBMD SM-3 Block IIA	-	-	-	27.348	7	191.436	28.407	9	255.665	33.254	8	266.032	-	-	-	33.254	8	266.03
Subtotal: Recurring Cost	-	-	-	-	-	191.436	-	-	255.665	-	-	266.032	-	-	-	-	-	266.0
Subtotal: Flyaway Cost	-	-	-	-	-	191.436	-	-	255.665	-	-	266.032	-	-	-	-	-	266.03
Hardware Cost				,	,										,	,		
Recurring Cost																		
Canisters Procurement SM-3 Block IIA (1)	-	-	-	1.054	8	8.433	0.949	10	9.486	0.894	9	8.047	-	-	-	0.894	9	8.04
Subtotal: Recurring Cost	-	-	-	-	-	8.433	-	-	9.486	-	-	8.047	-	-	-	-	-	8.04
Subtotal: Hardware Cost	-	-	-	-	-	8.433	-	-	9.486	-	-	8.047	-	-	-	-	-	8.04
Support Cost								·										
SM-3 BLK IIA Investment Spares (2)	-	-	-	9.630	1	9.630	14.003	1	14.003	4.194	1	4.194	-	-	-	4.194	1	4.19
SM-3 BLK IIA Service Life Evaluation Programs (3)	-	-	-	20.645	1	20.645	27.492	1	27.492	8.152	1	8.152	-	-	-	8.152	1	8.15
SM-3 Block IIA Obsolescence (4)	-	-	-	4.860	1	4.860	5.001	1	5.001	7.331	1	7.331	-	-	-	7.331	1	7.33
SM-3 Block IIA Production Engineering (5)	-	-	-	2.996	1	2.996	6.675	1	6.675	1.566	1	1.566	-	-	-	1.566	1	1.5
Subtotal: Support Cost	-	-	_	-	-	38.131	-	-	53.171	-	-	21.243	- 1	-	_	-	-	21.24

LI MD14 - SM-3 Block IIA Missile Defense Agency UNCLASSIFIED
Page 3 of 4

P-1 Line #34 Volume 2b - 95

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

MD14 / SM-3 Block IIA

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.

	F	rior Years	3		FY 2020			FY 2021		FY	2022 Bas	se	F	Y 2022 OC	0	F	/ 2022 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	0.000	0	0.000	34.000	7	238.000	35.369	9	318.322	36.915	8	295.322	-	-	-	36.915	8	295.322

#### Remarks:

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

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

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

Line item MDAI /MAIO Odde: 502												
	Prior			FY 2022	FY 2022	FY 2022					То	1
Resource Summary	Years	FY 2020	FY 2021	Base	OCO	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	4	1	1	1	-	1	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	335.000	55.000	77.000	62.000	-	62.000	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	335.000	55.000	77.000	62.000	-	62.000	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	335.000	55.000	77.000	62.000	-	62.000	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	83.750	55.000	77.000	62.000	-	62.000	-	-	-	-	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. Funding profile mirrors the Program Funding Baseline that has been coordinated with Israeli Missile Defense Organization based on the Strategic Plan of the MOU between Israel and the U.S.

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

MD26 / Arrow 3 Upper Tier System

P-1 Line Item Number / Title:

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Israeli Program Procurement		Α		4 / 335.000	1 / 55.000	1 / 77.000	1 / 62.000	- / -	1 / 62.000
P-40	Total Gross/Weapon System Cost				4 / 335.000	1 / 55.000	1 / 77.000	1 / 62.000	- 1 -	1 / 62.000

<sup>\*</sup>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.

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:

Israeli Program Procurement

	11				
	MC	AP/MAIS Code:			
Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
4	1	1	1	-	1
335.000	55.000	77.000	62.000	-	62.000
0.000	0.000	0.000	-	-	-
335.000	55.000	77.000	62.000	-	62.000
0.000	0.000	0.000	-	-	-
335.000	55.000	77.000	62.000	-	62.000
al purposes only. The corr	esponding budget requests	s are documented elsewher	re.)		
-	-	-	-	-	-
83.750	55.000	77.000	62.000	-	62.000
	4 335.000 0.000 335.000 0.000 335.000 al purposes only. The corr	Prior Years         FY 2020           4         1           335.000         55.000           0.000         0.000           335.000         55.000           0.000         0.000           335.000         55.000           al purposes only. The corresponding budget requests         -	4	Prior Years         FY 2020         FY 2021         FY 2022 Base           4         1         1         1           335.000         55.000         77.000         62.000           0.000         0.000         0.000         -           335.000         55.000         77.000         62.000           0.000         0.000         0.000         -           335.000         55.000         77.000         62.000           all purposes only. The corresponding budget requests are documented elsewhere.)         -         -         -	Prior Years         FY 2020         FY 2021         FY 2022 Base         FY 2022 OCO           4         1         1         1         -           335.000         55.000         77.000         62.000         -           0.000         0.000         0.000         -         -           0.000         0.000         77.000         62.000         -           0.000         0.000         0.000         -         -           335.000         55.000         77.000         62.000         -           all purposes only. The corresponding budget requests are documented elsewhere.)         -         -         -

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

	P	rior Years	5		FY 2020			FY 2021		FY	2022 Ba	se	F	1 2022 OC	0	FY	2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Israeli Programs	83.750	4	335.000	55.000	1	55.000	77.000	1	77.000	62.000	1	62.000	-	-	-	62.000	1	62.00
Subtotal: Recurring Cost	-	-	335.000	-	-	55.000	-	-	77.000	-	-	62.000	-	-	-	-	-	62.00
Subtotal: Hardware Cost	-	-	335.000	-	-	55.000	-	-	77.000	-	-	62.000	-	-	-	-	-	62.00
Gross/Weapon System Cost	83.750	4	335.000	55.000	1	55.000	77.000	1	77.000	62.000	1	62.000	-	-	-	62.000	1	62.00

#### 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.



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

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

Line Item MDAP/MAIS Code: 362

	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	4	1	1	1	-	1	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	117.500	50.000	50.000	30.000	-	30.000	-	-	-	-	Continuing	Continuing

# **Description:**

Previously named David's Sling. 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 fiscal year with funding.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

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

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	1 / David's Sling Weapon System [1]		Α		4 / 470.000	1 / 50.000	1 / 50.000	1 / 30.000	- / -	1 / 30.000
P-40	Total Gross/Weapon System Cost			4 / 470.000	1 / 50.000	1 / 50.000	1 / 30.000	- 1 -	1 / 30.000	

<sup>\*</sup>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.

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

MD34 / Short Range Ballistic Missile Defense (SRBMD) (David's Sling Weapon System (DSWS))

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	4	1	1	1	-	1
Gross/Weapon System Cost (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	470.000	50.000	50.000	30.000	-	30.000
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewhe	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	117.500	50.000	50.000	30.000	-	30.000

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

Note. Subtotals of Totals if	וו נוווא באוווטונ	r-5 may no	or be exact t	or Surin exacti	y due to rou	nuing.												
	F	Prior Years	s		FY 2020			FY 2021		FY	/ 2022 Ba	se	F۱	/ 2022 OC	0	F	Y 2022 Tot	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
David's Sling Weapon System	117.500	4	470.000	50.000	1	50.000	50.000	1	50.000	30.000	1	30.000	-	-	-	30.000	1	30.000
Subtotal: Recurring Cost	-	-	470.000	-	-	50.000	-	-	50.000	-	-	30.000	-	-	-	-	-	30.000
Subtotal: Hardware Cost	-	-	470.000	-	-	50.000	-	-	50.000	-	-	30.000	-	-	-	-	-	30.000
Gross/Weapon System Cost	117.500	4	470.000	50.000	1	50.000	50.000	1	50.000	30.000	1	30.000	-	-	-	30.000	1	30.000

#### Remarks:

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



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD65 / Defense of Guam Procurement

P-1 Line Item Number / Title:

Equipment, Missile Defense Agency ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604102C

Line Item MDAP/MAIS Code: 362

Life itelli MDAI /MAIO Oode: 502															
December Comment	Prior	EV 2020	EV 2024	FY 2022	FY 2022	FY 2022	EV 2022	EV 2024	EV 2025	EV 2020	To	Tatal			
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total			
Procurement Quantity (Units in Each)	0	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Cost (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000	-	-	-	-	-	-			
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000	-	-	-	-	-	-			
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-			
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000	-	-	-	-	-	-			
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)	•						
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-			
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-			

# **Description:**

Note: The increase from FY 2021 to FY 2022 provides the procurement of initial materials in support of an integrated air and missile defense (IAMD) system on Guam.

The Department is in the process of finalizing the details of this IAMD system, therefore the material procured with this funding shall not be used to procure items that are unique to any given IAMD architecture. However, all architectures under consideration carry some common elements, such as Fire Control System Transmitters, Directors, and processing equipment, Solid State Radar Components, Common Display Processing Equipment. The final configuration for IAMD on Guam will be made based on the results of the MDA and Cost Assessment and Program Evaluation (CAPE) architecture studies.

P-1 Line #37

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD65 / Defense of Guam Procurement

Equipment, Missile Defense Agency ID Code (A=Service Ready, B=Not Service Ready): B

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604102C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	GDS Equipment		В		0 / 0.000	- / 0.000	- / 0.000	- /40.000	- / -	- /40.000
P-40	Total Gross/Weapon System Cost			0 / 0.000	- / 0.000	- / 0.000	- / 40.000	- 1 -	- / 40.000	

<sup>\*</sup>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:

Defense of Guam Procurement is a new start in FY 2022. MDA plans to begin purchasing material that are common to the architectures under consideration, consistent with Department decisions based on CAPE and MDA studies such as:

- -Fire Control System Transmitters, Directors, and processing equipment
- -Solid State Radar Components
- -Common Display Processing Equipment

P-1 Line #37

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

Date: May 2021

Item Number / Title [DODIC]:

MD65 / Defense of Guam Procurement

GDS Equipment

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	0	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	40.000	-	40.000
(The following Resource Summary rows are for informati	onal purposes only. The cor	responding budget requests	are documented elsewher	re.)		
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.

140tc. Oubtotals of Totals	III UIIO EXIIIDII	. To may m	- DO ONGOLO	or ourir oxuoti	y ado to 100	inding.												
	F	Prior Years	s		FY 2020			FY 2021		F	1 2022 Ba	se	F'	Y 2022 OC	0	F'	Y 2022 Tot	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost	_																	
Common Material Components	-	-	-	-	-	-	-	-	-	40.000	1	40.000	-	-	-	40.000	1	40.00
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	40.000	-	-	-	-	-	40.00
Subtotal: Hardware Cost	-	-	-	-	-	-	-	-	-	-	-	40.000	-	-	-	-	-	40.00
Gross/Weapon System Cost	0.000	0	0.000	0.000	-	0.000	0.000	-	0.000	-	-	40.000	-	-	-	-	-	40.00

#### Remarks:

Common IAMD elements include:

- -Fire Control System Transmitters, Directors, and processing equipment
- -Solid State Radar Components
- -Common Display Processing Equipment

ID Code (A=Service Ready, B=Not Service Ready): B



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

MD73 / Aegis Ashore Phase III

ID Code (A=Service Ready, B=Not Service Ready): A Program Elements for Code B Items: 0604881C, 0603892C, 0604880C

Line Item MDAP/MAIS Code: 362

	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	1	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866	-	-	-	-	-	-
(The following	g Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	514.820	0.000	0.000	-	-	-	-	-	-	-	-	-

## **Description:**

Note: The decrease from FY 2021 to FY 2022 reflects planned program maturation costs to meet European Phased Adaptive Approach (EPAA) Phase III Technical Capability Declaration (TCD) in FY 2022.

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 (MD) 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 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 2022) 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

P-1 Line Item Number / Title:

Appropriation / Budget Activity / Budget Sub Activity:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD73 / Aegis Ashore Phase III

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready): A

Program Elements for Code B Items: 0604881C. 0603892C. 0604880C

Other Related Program Elements: 0604880C

**Date: May 2021** 

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule		•		Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Aegis Ashore Poland, Equipment and Deckhouse	P-5a, P-21	Α		1 / 514.820	- / 26.495	- / 34.629	- / 25.866	- / -	- / 25.866
P-40	Total Gross/Weapon System Cost		1 / 514.820	- / 26.495	- / 34.629	- / 25.866	- 1 -	- / 25.866		

<sup>\*</sup>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 to be installed in Poland contains a Deckhouse structure and Weapon System comprised of a AN/SPY-1D(V) radar, Vertical Launch System (VLS), computing infrastructure, Command, Control, Communications, Computers and Intelligence (C4I) systems, and operator consoles with very diverse procurement lead times from multiple contracts. The funding profile addresses the multiple actions required to field the Aegis Ashore end item in Poland in FY 2022, keep the individual components up to date with the Navy's destroyer modernization plan and install modifications as required to enhance coexistence with Broadband Wireless Access systems in the European theater. MDA uses Research Development, Test, and Evaluation (RDT&E) (Program Element (PE)-0604880C) to modernize, 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 2016 Fabrication of the Deckhouse structure and assembly of Aegis Ashore Deckhouse structure in Poland.

FY 2017 Install Aegis Ashore Weapon System in the Aegis Ashore Deckhouse structure in Poland.

FY 2018 Continue installation of the Aegis Ashore Weapon System in the Aegis Ashore Deckhouse structure in Poland.

FY 2019 Continue installation of the combat system and combat structure adaptation, integration and installation

FY 2020 Continue installation of the combat system and combat structure adaptation, integration and installation

FY 2021 Continue installation of the combat system and combat structure adaptation, integration and installation

FY 2022 Complete weapon system commissioning prior to Chief of Naval Operations acceptance and EUCOM acceptance

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

MD73 / Aegis Ashore Phase III

Aegis Ashore Poland, Equipment and

Deckhouse

**Date:** May 2021

ID Code (A=Service Ready, B=Not Service Ready): A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total				
Procurement Quantity (Units in Each)	1	-	-	-	-	-				
Gross/Weapon System Cost (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866				
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-				
Net Procurement (P-1) (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866				
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-				
Total Obligation Authority (\$ in Millions)	514.820	26.495	34.629	25.866	-	25.866				
(The following Resource Summary rows are for inform	(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)									

(The following Resource Summary rows are for information	onai purposes oniy. The coi	rresponaing buaget request	s are documented elsewne	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Meanon System Unit Cost (\$ in Millions)	514 820	0.000	0.000	_	_	_

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

	P	rior Years	6		FY 2020			FY 2021		FY	2022 Ba	se	F	/ 2022 OC	0	FY	/ 2022 Tot	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Aegis Ashore Poland, Equipment and Deckhouse <sup>(†)</sup>	514.820	1	514.820	-	-	26.495	-	-	34.629	-	-	25.866	-	-	-	-	-	25.86
Subtotal: Recurring Cost	-	-	514.820	-	-	26.495	-	-	34.629	-	-	25.866	-	-	-	-	-	25.86
Subtotal: Flyaway Cost	-	-	514.820	-	-	26.495	-	-	34.629	-	-	25.866	-	-	-	-	-	25.8
Gross/Weapon System Cost	514.820	1	514.820	0.000	-	26.495	0.000	-	34.629	-	-	25.866	-	-	-	-	-	25.86

Remarks:

N/A

**UNCLASSIFIED** 

P-1 Line #38

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 M	Missile Defense Agency	<b>Date:</b> May 2021
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	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	<b>Qty</b> (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Aegis Ashore Poland, Equipment and Deckhouse <sup>(†)</sup>		2015	USACE / Poland	MIPR	Dahlgren VA	Jan 2016	Jun 2022	1	0.000	N		

<sup>(†)</sup> indicates the presence of a P-21

Exhi	ibit	P-21, Pro	duct	ion Sc	hedul	e: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
	-	riation / I 01 / 17	Budg	et Acti	vity /	Budç	get Su	ıb Ac	tivity	•		<b>Line</b> 73 / A		-									Aegi		ore F		[DOI	DIC]: uipme	nt an	d
		Cost El (Units i	ements n Each)								Fiscal Y	ear 2016											Fiscal Y	ear 2017	,					В
				ACCEPT									С	alendar	Year 201	6								Calen	ndar Year	r 2017				Ĺ
O F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	J U L	A U G	S E P	A N C E
Aegis	Ashore	e Poland, Equip	ment and	Deckhous	е										<u>'</u>		,	<u> </u>									·			
1	2015	MDA	1	0	1		_		Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					,	O C T	N O V	D E C	J A N	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 L	A U G	S E P	

Exhi	ibit	P-21, Pro	oduct	ion Sc	hedul	e: PE	3 2022	2 Miss	sile De	efens	e Age	ency											Date	: May	y 202	1				
	-	riation /     01 / 17	Budg	et Acti	vity /	Budg	jet Su	ıb Ac	tivity	:		<b>Line</b> 73 / A		-									Aegi		ore F		[DOI d, Equ	DIC]: uipme	nt an	d
			ements n Each)								Fiscal Y	ear 2018											Fiscal Y	ear 2019						В
				ACCEPT									С	alendar	Year 201	8								Calen	dar Yea	2019				Ĺ
O F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	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	A U G	S E P	A N C E
Aegis	Ashore	e Poland, Equip	ment and	Deckhous	e												,	<u>'</u>												
1	2015	5 MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J J	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	J L	A U G	S E P	

Ext	nib	it F	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	: Ma	y 202	1				
		-	iation / 01 / 17	Budg	et Acti	ivity /	Budç	get Sı	ıb Ac	tivity	:	1		Item legis /										Aeg		nore F	Title Poland		DIC]: uipme	nt an	b
				lements in Each)								Fiscal Y	ear 2020											Fiscal Y	ear 2021						ВА
					ACCEPT									Ca	alendar	Year 202	0								Calen	ıdar Yeaı	r 2021				L
O F C R O #	Λ =    }	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	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	N C E
Aegi	s As	hore	Poland, Equi	pment and	Deckhous	se			,	,										,		· ·			,						
1	1 2	2015	MDA	1	0	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	J U	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	A U G	S E P	

Ex	hib	it P	-21, Pr	oduct	ion Sc	hedu	le: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
_	-	_	<b>ation</b> / )1 / 17	Budg	et Acti	vity /	Budç	get S	ub Ac	tivity	:	1 -	<b>Line</b> 973 / <i>P</i>											Aeg		nber / nore F se				nt an	d
				lements in Each)								Fiscal Y	ear 2022											Fiscal Y	ear 2023						В
					ACCEPT									C	alendar	Year 202	22								Caler	ndar Year	r 2023				] [
	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	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	N C
۱e	gis As	shore F	Poland, Equi	pment and	Deckhous	e					,												·								
	1 2	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	N N	J U L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2022 Missile Defense	Agency	Date: May 2021
, , , , ,	MD73 / Aegis Ashore Phase III	Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse

ſ			Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
ا	MFR						lni	tial			Reo	rder	
	Ref #	Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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
Ī	1	USACE - Poland				0	0	0	0	0	0	0	0

<sup>&</sup>quot;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 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).



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

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

Line item MDAI /MAIO Odde: 502												
	Prior			FY 2022	FY 2022	FY 2022					То	
Resource Summary	Years	FY 2020	FY 2021	Base	OCO	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total
Procurement Quantity (Units in Each)	8	1	1	1	-	1	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	184.204	95.000	73.000	108.000	-	108.000	-	-	-	-	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. Funding profile mirrors the Program Funding Baseline that has been coordinated with Israeli Missile Defense Organization based on the Strategic Plan of the MOU between Israel and the U.S.

LI MD83 - Iron Dome Missile Defense Agency **UNCLASSIFIED** 

Volume 2b - 119 P-1 Line #39

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD83 / Iron Dome

Equipment, Missile Defense Agency

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
P-5	Iron Dome		Α		8 / 1,473.630	1 / 95.000	1 / 73.000	1 / 108.000	- / -	1 / 108.000
P-40	Total Gross/Weapon System Cost				8 / 1,473.630	1 / 95.000	1 / 73.000	1 / 108.000	- / -	1 / 108.000

<sup>\*</sup>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.

LI MD83 - Iron Dome Missile Defense Agency UNCLASSIFIED Page 2 of 3

P-1 Line #39

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD83 / Iron Dome

ID Code (A-Souries Ready Reflet Souries Ready): A

MDAP/MAIS Code:

ID Code (A=Service Ready, B=Not Service Ready) . A		IVIL	DAP/IVIAIS Code.			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	8	1	1	1	-	1
Gross/Weapon System Cost (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	1,473.630	95.000	73.000	108.000	-	108.000
(The following Resource Summary rows are for informat	ional purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	184.204	95.000	73.000	108.000	-	108.000

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

	F	Prior Years	S		FY 2020			FY 2021		FY	2022 Bas	se	F۱	2022 OC	0	FY	2022 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Iron Dome	184.204	8	1,473.630	95.000	1	95.000	73.000	1	73.000	108.000	1	108.000	-	-	-	108.000	1	108.000
Subtotal: Recurring Cost	-	-	1,473.630	-	-	95.000	-	-	73.000	-	-	108.000	-	-	-	-	-	108.00
Subtotal: Hardware Cost	-	-	1,473.630	-	-	95.000	-	-	73.000	-	-	108.000	-	-	-	-	-	108.00
Gross/Weapon System Cost	184.204	8	1,473.630	95.000	1	95.000	73.000	1	73.000	108.000	1	108.000	-	-	-	108.000	1	108.000

#### 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.



Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

MD90 / Aegis BMD Hardware and Software

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready); A

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

D	Prior	EV 0000	EV 0004	FY 2022	FY 2022	FY 2022	EV 0000	EV 0004	EV 000E	E)/ 0000	To	T-4-1		
Resource Summary	Years	FY 2020	FY 2021	Base	oco	Total	FY 2023	FY 2024	FY 2025	FY 2026	Complete	Total		
Procurement Quantity (Units in Each)	88	36	49	14	-	14	-	-	-	-	Continuing	Continuing		
Gross/Weapon System Cost (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.791	-	-	-	-	Continuing	Continuing		
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.791	-	-	-	-	Continuing	Continuing		
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-	-	-	-	-	-			
Total Obligation Authority (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.791	-	-	-	-	Continuing	Continuing		
(The following	(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)													
Initial Spares (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-			
Flyaway Unit Cost (\$ in Millions)	0.000	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Millions)	4.962	3.449	2.127	5.842	_	5.842	_	_	_	-	Continuing	Continuing		

## **Description:**

FY 2022 Base procurement budget request 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 MDS 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 MDS in support of early detection of BMD threats to the homeland. 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.

P-1 Line #40

Exhibit P-40, Budget Line Item Justification: PB 2022 Missile Defense Agency

P-1 Line Item Number / Title:

Appropriation / Budget Activity / Budget Sub Activity:

MD90 / Aegis BMD Hardware and Software

**Date: May 2021** 

0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major

Equipment, Missile Defense Agency

ID Code (A=Service Ready, B=Not Service Ready): A

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603892C

Line Item MDAP/MAIS Code: 362

	Exhibits Schedule				Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	Aegis BMD Shipsets	P-5a, P-21	Α		88 / 436.649	36 / 124.150	49 / 104.241	14 / 81.791	- / -	14 / 81.791
P-40	Total Gross/Weapon System Cost				88 / 436.649	36 / 124.150	49 / 104.241	14 / 81.791	- 1 -	14 / 81.791

<sup>\*</sup>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 2022 Base procurement dollars supports the continued procurement and deployment of 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.

Upgrading the 3.6 and 4.0 shipsets to 4.x adds capability and capacity in support of the European Phased Adaptive Approach EPAA Phase II requirements.

Upgrading the 4.x to BL 5.4.0 (BMD 4.1.2) delivers a single AWS maximizing a merger of BMD 4.1 and B/L 5.3 computer programs within the current BMD 4 system architecture. Additional capabilities delivered include Anti-Air Warfare (AAW) improvements, SM-6 Dual I Extended Range AAW/Anti-Surface Warfare (ASUW), interoperability improvements, and updated BMD threat adaptation data.

Upgrading 4.x to BL 5.4.1 (BMD 4.2) is a joint effort with the U.S. Navy that refurbishes existing ship AN/SPY-1 radar arrays with the installation of antenna Low Noise Amplifiers (LNAs). Updates planned for Flight I/II Destroyers (DDG) with increased capability and growth to maintain relevance through End of Service Life. Capabilities delivered include discrimination improvements, increased threat set, and other warfighter improvements. BMD 4.2 procured an Array Set in FY 2020 to support rotatable pool for radar refurbishment. Navy Certification of BL 5.4.1 (BMD 4.2) is planned to occur in FY 2023.

Upgrading the 5.x shipsets adds capability and capacity in support of achieving the European Phased Adaptive Approach EPAA Phase III requirements. Hardware and software updates to 5.x shipsets provides warfighter improvements implemented through Combat System upgrades to meet emerging threats.

The procurement and fielding of new BMD components impacted by Diminishing Manufacturing Sources (DMS) will allow for the continued production of 5.x and BL 5.4.0 (BMD 4.1.2) in support of EPAA Phase II and III requirements.

**Date:** May 2021 Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 0300D / 01 / 17 MD90 / Aegis BMD Hardware and Software Aegis BMD Shipsets

				0	•	
ID Code (A=Service Ready, B=Not Service Ready): A		MD				
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	88	36	49	14	-	14
Gross/Weapon System Cost (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.791
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.79
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	436.649	124.150	104.241	81.791	-	81.791
(The following Resource Summary rows are for info	mational purposes only. The corre	esponding budget requests	are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	4 962	3 449	2 127	5 842	_	5 842

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

	P	Prior Years			FY 2020			FY 2021			2022 Bas	se	FY	/ 2022 OC	:0	FY 2022 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)												
Hardware Cost																		
Recurring Cost																		
Aegis BL 5.4.0 (BMD 4.1.2) Installs <sup>(†)</sup>	0.650	3	1.951	0.633	5	3.163	0.647	5	3.235	-	-	-	-	-	-	-	-	
Aegis BL 5.4.0 (BMD 4.1.2) Procurement <sup>(†)</sup>	0.167	10	1.665	0.324	8	2.592	-	-	-	-	-	-	-	-	-	-	-	
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement <sup>(†)</sup>	-	-	-	51.996	1	51.996	3.719	3	11.158	24.172	1	24.172	-	-	-	24.172	1	24.
Aegis BL 9.C1 (5.0 CU) Installs	1.400	1	1.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>	1.007	14	14.094	1.163	2	2.326	1.615	2	3.230	-	-	-	-	-	-	-	-	
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement <sup>(†)</sup>	2.194	17	37.297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>	1.382	6	8.294	2.190	3	6.570	2.134	4	8.534	1.361	2	2.722	-	-	-	1.361	2	2.
Aegis BL 9.C2 (BMD 5.1) Inline Procurements <sup>(†)</sup>	4.026	8	32.209	3.871	3	11.613	6.862	3	20.587	6.563	3	19.689	-	-	-	6.563	3	19
Aegis BMD 3.6 to 4.X Hardware Procurements <sup>(†)</sup>	13.655	11	150.203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0300D / 01 / 17

ID Code (A=Service Ready, B=Not Service Ready): A

MD90 / Aegis BMD Hardware and Software

MDAP/MAIS Code:

Aegis BMD Shipsets

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

	Prior Years				FY 2020			FY 2021		FY 2022 Base			FY 2022 OCO			FY 2022 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Aegis BMD 3.6 to 4.X Installs <sup>(†)</sup>	17.971	10	179.713	23.646	1	23.646	25.119	1	25.119	25.621	1	25.621	-	-	-	25.621	1	25.62
Aegis BMD DMS <sup>(†)</sup>	-	-	-	-	-	-	0.326	12	3.909	0.829	3	2.488	-	-	-	0.829	3	2.48
Aegis BMD TI-12H Upgrade Installs <sup>(†)</sup>	-	-	-	-	-	-	2.211	4	8.844	3.147	1	3.147	-	-	-	3.147	1	3.14
Aegis BMD TI-12H Upgrade Procurement <sup>(†)</sup>	3.312	2	6.623	3.420	5	17.099	3.671	3	11.014	3.081	1	3.081	-	-	-	3.081	1	3.08
Subtotal: Recurring Cost	-	-	433.449	-	-	119.005	-	-	95.630	-	-	80.920	-	-	-	-	-	80.92
Subtotal: Hardware Cost	-	-	433.449	-	-	119.005	-	-	95.630	-	-	80.920	-	-	-	-	-	80.92
Software Cost																		
Recurring Cost																		
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs <sup>(†)</sup>	-	-	-	0.643	8	5.145	0.718	12	8.611	0.436	2	0.871	-	-	-	0.436	2	0.87
Aegis BMD 4.0 to 4.X Software Installs	0.533	6	3.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	3.200	-	-	5.145	-	-	8.611	-	-	0.871	-	-	-	- 1	-	0.87
Subtotal: Software Cost	-	-	3.200	-	-	5.145	-	-	8.611	-	-	0.871	-	-	-	-	-	0.87
Gross/Weapon System Cost	4.962	88	436.649	3.449	36	124.150	2.127	49	104.241	5.842	14	81.791	-	-	-	5.842	14	81.79

#### Remarks:

All Shipset procurements and installs are in alignment with Navy Ship Fielding Plan as of 8 April 2020.

Aegis BL 5.4.0 (BMD 4.1.2) delivers a single Aegis Weapon System, maximizing a merger of Aegis BMD 4.1 with U.S. Navy (USN) Aegis Baseline 5.3.11 computer programs along with capturing selected BL 7 and BL 9 capabilities within the current BMD 4 system architecture. Planned update for 21 FLT I/II DDG's and 2 Cruisers (CG).

Upgrading 4.x to BL 5.4.1 (BMD 4.2) is a joint effort with the U.S. Navy that refurbishes existing ship AN/SPY-1 radar arrays with the installation of antenna Low Noise Amplifiers (LNAs). Updates planned for Flight I/II Destroyers (DDG) with increased capability and growth to maintain relevance through End of Service Life. Capabilities delivered include discrimination improvements, increased threat set, and other warfighter improvements. BMD 4.2 procured an Array Set in FY 2020 to support rotatable pool for radar refurbishment. Navy Certification of BL 5.4.1 (BMD 4.2) is planned to occur in FY 2023.

The Aegis BL 9.C2 (BMD 5.1) Backfit upgrade installs consists 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 Aegis BL 9.C1 (BMD 5.0CU) capable ship to BL 9.C2 (BMD 5.1). These unit costs are averaged in the years where there is a mix of ship configurations and will result in unit cost fluctuations year to year.

The Aegis BL 9.C2 (BMD 5.1) Inline procurement/installation upgrades non-BMD capable ships to full Aegis BL 9.C2 (BMD 5.1) capability. Unit costs for Aegis BL 9.C2 (BMD 5.1) Inline Procurements is dependent on specific ship configuration. These unit costs are averaged in the years where there is a mix of ship configurations and will result in unit cost fluctuations year to year.

	UNCLASSIFIED	
Exhibit P-5, Cost Analysis: PB 2022 Missile Defense Ager	псу	Date: May 2021
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:	
The BMD 3.6 to 4.x install includes a hardware and software upgrade suite	e that adds capability and capacity in support of all future baseline upg	rade deliveries. The installations will be completed after FY 2022.
The Aegis BMD Production DMS Procurements allows for the continued p installation of this hardware on in-service BMD 5.x and BL 5.4 (BMD 4.1) s		impacted by production hardware obsolescence, and the
The Aegis BL 9.C2 (BMD 5.1) TI-12H Upgrade Procurement consists of ha compatible weapon system configuration.	ardware and associated computer program necessary to upgrade exis	ting in-service Aegis BL 9.C2 (BMD 5.1) TI-12 ships to a TI-16
The Aegis BL 9.B/C2 (BMD 5.1) Capability Upgrade Installs deliver increment threats.	nental Common Source Library (CSL) capability upgrades to the BMD	5.1 ships and sites providing increased performance against
<sup>(†)</sup> indicates the presence of a P-5a		

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D / 01 / 17

MD90 / Aegis BMD Hardware and Software

Date: May 2021
Item Number / Title [DODIC]:

Aegis BMD Shipsets

3000701717			IVI	Dao i Aegis Divil	Hardware and Sof	tware		Aegis	S RIVID 2UI	paeia		
Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	<b>Qty</b> (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issu
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 <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington DC	Jun 2020	Sep 2020	5	0.160	Υ		Jun 2019
Aegis BL 5.4.0 (BMD 4.1.2) Installs <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Nov 2021	5	0.647	Υ		Feb 2020
Aegis BL 5.4.0 (BMD 4.1.2) Procurement <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Apr 2019	Mar 2020	10	0.167	Υ		Jan 2018
Aegis BL 5.4.0 (BMD 4.1.2) Procurement <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Apr 2020	Sep 2020	8	0.200	Υ		Jan 2019
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Dec 2019	Dec 2020	1	51.996	Υ		Mar 2019
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2017	Oct 2018	3	1.134	Υ		Aug 2016
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>		2018	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Nov 2017	Jun 2018	8	0.710	Υ		Feb 2017
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2019	Apr 2020	3	0.762	Υ		Jun 2018
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Feb 2020	Jun 2020	2	1.485	Υ		Jun 2019
Aegis BL 9.C2 (BMD 5.1) BackFit Installs <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2020	Dec 2020	2	1.615	Υ		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 <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	6	2.533	Υ		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	1	3.310	Υ		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2018	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2018	Jan 2019	3	0.450	Υ		Jul 2017
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2019	Jan 2020	2	0.636	Υ		Jul 2018
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2020	Jan 2021	3	0.460	Υ		Jul 2019
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Aug 2022	4	2.134	Υ		Jul 2020

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

0300D / 01 / 17

MD90 / Aegis BMD Hardware and Software

Item Number / Title [DODIC]:

Aegis BMD Shipsets

**Date:** May 2021

	0			Method/Type			Date			Specs	Date	
Cost Elements	C	FY	Contractor and Location	or Funding Vehicle	Location of PCO	Award Date	of First Delivery	<b>Qty</b> (Each)	Unit Cost	Avail Now?	Revision Available	RFP Issu Date
Aegis BL 9.C2 (BMD 5.1) Inline Installs <sup>(†)</sup>		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2021	Feb 2022	2	1.361	Y		Jul 2021
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 <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	May 2017	Nov 2018	1	3.913	Υ		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Procurements <sup>(†)</sup>		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 <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2019	Aug 2020	2	3.738	Υ		Jun 2018
Aegis BL 9.C2 (BMD 5.1) Inline Procurements <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2020	Aug 2021	3	3.871	Υ		Jun 2019
Aegis BL 9.C2 (BMD 5.1) Inline Procurements <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2021	Jun 2022	3	6.862	N		Apr 2020
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 <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	1	12.100	Υ		Jul 2016
Aegis BMD 3.6 to 4.X Hardware Procurements <sup>(†)</sup>		2018	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2018	Aug 2019	3	12.100	Υ		Jul 2017
Aegis BMD 3.6 to 4.X Hardware Procurements <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2019	Aug 2020	1	15.010	Υ		Jun 2018
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 <sup>(†)</sup>		2017	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Jan 2017	Jun 2018	1	9.100	Υ		May 2016
Aegis BMD 3.6 to 4.X Installs <sup>(†)</sup>		2018	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Feb 2018	Feb 2019	5	7.100	Υ		Aug 2016
Aegis BMD 3.6 to 4.X Installs <sup>(†)</sup>		2019	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Nov 2017	Sep 2019	3	18.299	Υ		Nov 2017
Aegis BMD 3.6 to 4.X Installs <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Nov 2019	Jul 2021	1	7.500	Υ		Nov 2018
Aegis BMD DMS <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2021	Jun 2022	12	0.326	N		Nov 2020
Aegis BMD TI-12H Upgrade Installs <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Oct 2020	Nov 2020	4	2.145	Υ		Feb 2020
Aegis BMD TI-12H Upgrade Installs <sup>(†)</sup>		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Oct 2021	Nov 2021	1	3.147	Υ		Jul 2021
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

Exhibit P-5a, Procurement History and Planning: PB 2022 Missile Defense Agency

Appropriation / Budget Activity / Budget Sub Activity:

0300D / 01 / 17

P-1 Line Item Number / Title:

MD90 / Aegis BMD Hardware and Software

Date: May 2021

Item Number / Title [DODIC]:

Aegis BMD Shipsets

				-				1 -		•		
Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	<b>Qty</b> (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue
Aegis BMD TI-12H Upgrade Procurement <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2020	Oct 2020	5	3.419	Υ		Jun 2019
Aegis BMD TI-12H Upgrade Procurement <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2021	Oct 2021	3	3.671	N		Apr 2020
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs <sup>(†)</sup>		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Apr 2020	Sep 2020	8	0.160	Υ		Apr 2019
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs <sup>(†)</sup>		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Aug 2021	12	0.718	Υ		Feb 2020
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs <sup>(†)</sup>		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2021	Aug 2022	2	0.436	Υ		Oct 2021

<sup>(†)</sup> indicates the presence of a P-21

Exhibit	P-21, Pr	oducti	on Sc	hedul	e: PE	3 202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
	riation / 01 / 17	Budge	t Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:					<b>ber</b> / Hard		and S	oftwa	are						<b>nber</b> /			DIC]:		
		Elements in Each)								Fiscal V	ear 2016											Fiscal Y	oar 2017	,					В
	(Offits	III Eacii)	ACCEPT				-			riscai i	eai 2016		alondar	Year 201	6							FISCAI I		ndar Yea	2017				A L
М			PRIOR	BAL																									Α
0   F   C   R   O   #   FY	SERVICE	PROC QTY	TO 1 OCT 2015	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	U L	U G	S E P	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	N U J	U L	A U G	S E P	N C E
Aegis BL 5.4	1.0 (BMD 4.1.2	) Installs										,										,							
1 2020	MDA	5	0	5																									
1 2021	1 MDA	5	0	5																									
	1.0 (BMD 4.1.2	) Procurem	ent																										
2 2019		10	0	10																									
3 2020		8	0																										
	1.1 (BMD 4.2) I	1		_																									
4 2020		1	0	1																									
	C2 (BMD 5.1) E			, ,																					1				
5 2017		3	0																					_	Α -	-	-	-	
5 2018		8	0																										<u> </u>
5 2019		3	0																										-
5 2020		2	0						-																				-
5 2021		2	0	2																									
_	C2 (BMD 5.1) E																					I	I	_	l				
6 2017		6	0	6																	Α -	-	-	-	-	-	-	-	_
7 2017	C2 (BMD 5.1) I	niine instali	s 0	1																	Α -	_	_	T -	_	_	_	-	
7 2018		3	0																		Α -	_	-		_	-	-	-	
7 2019		2	0																										
7 2020	_	3	0																										
7 2021		4	0																										
7 2022	+	2	0																										
	C2 (BMD 5.1) I																												
8 2017		1	0	1																				Α -	-	_	_	-	
8 2018		3	0																					1					
8 2019		2	0																										
8 2020	_	3	0																										
8 2021		3	0																										
	3.6 to 4.X Hard																												
9 2017		1	0	1																	Α -	-	-	-	-	-	-	-	
9 2018	B MDA	3	0	3																									
9 2019	MDA	1	0	1				-																					
				,	O C	N O	D E	J A	F E	M A	A P	M A	J	n n	A U	S E	0 C	N O	D E	J A	F E	M A	A P	M A	J J	n 1	A U	S E	
					T	V	С	N	В	R	R	Y	N	L	G	Р	Т	V	С	N	В	R	R	Y	N	L	G	Р	1

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 9 of 17

P-1 Line #40

Ext	hik	oit I	P-21, Pr	oducti	ion Sc	hedul	le: PE	3 202	2 Mis	sile D	efens	se Age	ency											Date	e: Ma	y 202	1				
			riation / 01 / 17	Budge	et Act	ivity /	Budg	jet Sı	ıb A	ctivity	<b>/</b> :					<b>ber</b> / Hard		and S	oftwa	are						<b>nber</b> /			DIC]:		
				lements in Each)	,					,		Fiscal Y	ear 2016	3										Fiscal V	ear 2017						В
	Т		(0////0	III Edony	ACCEPT							1100011	00. 2010		Calenda	Year 20	16							1 10001 1		ndar Year	r 2017				A L
D F	₹∣	ΕV	050/405	PROC	PRIOR TO 1 OCT	DUE AS OF	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	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	A N C
tipe∆		FY	.6 to 4.X Insta	QTY	2015	1 OCT	1	V	C	N	В	K	K	Y	N	<u> </u>	<u> </u>	P	- 1	_ V	L C	N	В	K	K	Υ	N	<u> </u>	G	Ρ	
_	_		MDA	1	С	1																Α -	_	_	_	I -	_	T -	_	_	1
_	_		MDA	5																	_	^\									
			MDA	3																											
_	_		MDA	1	C	1																								-	
Aegi	s Bl	MD D	MS																												
1	1 2	2021	MDA	12	C	12																									
Aegi	s Bl	MD T	I-12H Upgrad	e Installs																											
_	_		MDA	4		_																									
			MDA	1		1																									
_			I-12H Upgrad	_																										_	,
_	_		MDA	5																										_	
			MDA	3																											
_			/C2 (BMD 5.1)			_																								_	
_	_		MDA	8						_																					
	$\rightarrow$		MDA	12																										_	
14	4 4	2022	MDA		C	2	0	N	D	J	F	М	Ι Δ	М	J	J	Ι .	e	_	N			F	М	Α.	M		J	Α.	s	1
							C T	0 V	E	A N	E B	A R	A P R	A Y	N N	Ü	A U G	S E P	O C T	N O V	D E C	J A N	E B	A R	A P R	M A Y	N U J	U L	A U G	E P	

Reg	Exhibit	P-21, Pr	oducti	on Sc	hedul	le: PB	202	2 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
Fine			Budge	t Acti	vity /	Budg	et Sı	ub Ac	ctivity	<b>':</b>	- 1						and S	oftwa	re									DIC]:		
A											Figural V	/oor 2010							,				Figor! \	'aar 2010						В
N		(Onits	III Eacii)	ACCEPT							FISCAI I	ear 2010		`alondar	Voar 201	18							riscai i			2019				
Registry   Service   Servi				PRIOR																										A
1   222   MOA	CR	SERVICE		OCT	AS OF	С	0	E	A	E	Α	P	Α	Ü	Ü	U	E	С	0	E	Α	E	Α	P	Α	Ü		U	E	С
1   2012   MAA	Aegis BL 5.4	4.0 (BMD 4.1.2)	Installs									,							· ·		,				,					
Apple 18.6 40 (MMO 4.1 2) Procurement  2	1 2020	MDA	5	0	5																									
2   90   10   10   0   10   0   10   0   10   0	1 2021	1 MDA	5	0	5																									
3   2020   MOA			Procurem	ent	,																									
Aggist LGC (2RMO 5.1) Brace   From 1			10	0	10																			Α -	-	-	-	-	-	<u> </u>
4   2020   MDA																														
Aegis BL, 9CZ (BMD 5.1) BackFit Installs			Hardware P		1																									
S   2017   MOA					1																									$\perp$
S   2018   MDA		1	1					1				1																		
S   2019   MDA						-	-	-		-	-	-				-		1	-	-			-			-	1			_
S   2020   MDA							Α -	-	-	-	-	-	-	1	-	-	4	-	-	-	1	-	-	1	-	-				₩
S   2021   MDA																										Α -	-	-	-	ــــــ
Aegis BL 9.C 2 (BMD 5.1) BaskFit Procurement    6																														┼
Registry CCZ (RMD 5.1) triline Installs  7   2017   MDA					2																									
Aegis BL 9 Cz (BMD 5.1) Imine Instalis    7   2017   MDA								1	Т	I	Ι	T		I	I															_
7 2017 MDA 1 0 1				-	6	-	-	-		_	_		-	-	-	6														
7   2018   MDA		, ,	T 1		1			T .	T	T	Γ	I		l	l	1														_
7   2019   MDA								-				-									1			1		1	1			
7   2020   MDA									Α-	_	_	_	_	-	_	_	-	- 1			- 1				-					+-
7   2021   MDA		_		-																	Α-			_	_	_	_	-	_	+
T   2022   MDA					_																									+-
Aegis BL 9.02 (BMD 5.1) Inline Procurements    8   2017   MDA				-																										+-
8 2017 MDA																														
8 2018 MDA 3 0 3			1		1	[		Ι -	Τ.	Π.	Ι.	Π_	_	_	_	Ι.		- 1	1											T
8   2019   MDA   2   0   2								1												_	-	-	-	1	-	-	_	-	-	+-
8 2020 MDA 3 0 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5						-			_	<u> </u>			<u> </u>	1	1							A -			_	-	-		_	+
8   2021   MDA   3   0   3		_				-																		1					1	+
Aegis BMD 3.6 to 4.X Hardware Procurements    9   2017   MDA																														+
9 2018 MDA 3 0 3			ware Procu	urements																										
9 2019 MDA 1 0 1			T 1		1	-	-	-	-	-	-	-	-	-	-	1														
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 E C O E A E A P A U U E			3	0	3			1		Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	+
C   O   E   A   E   A   P   A   U   U   E   C   O   E   A   E   A   P   A   U   U   E	9 2019	9 MDA	1	0	1					1	1	1	I	1	1	-						Α -	-	-	-	-	-	-	-	
					,				_					_	_						- 1									

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 11 of 17

P-1 Line #40

Exhibit P-21, P	roducti	on Sc	hedul	e: PB	202	2 Mis	sile D	efen	se Ag	ency												Dat	<b>e:</b> Ma	ay 20	JZT				
<b>Appropriation</b> <i>I</i> 0300D <i>I</i> 01 <i>I</i> 17	Budge	t Acti	vity /	Budg	et Sı	ub Ac	ctivity	<b>/</b> :		<b>1 Line</b> 090 /						Softv	vare						<b>n Nu</b> gis BN				[DOD	IC]:	
	Elements s in Each)								Fiscal	Year 201	8											Fiscal	Year 201	9					
		ACCEPT				_						Calenda	r Year 2	018						-			Cale	ndar Y	ear 2	019			
M O F C R O # FY SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J L	A U G	S E P	С	N C V	)	D E C	J A N	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 BMD 3.6 to 4.X Inst	alls																												
10 2017 MDA	1	0	1	-	-	-	-	-	-	-	-		1																
10 2018 MDA	5	0	5					Α -	-	-	-	-		-		-	-	-	-	-	1	-	-		-	1	1	1	-
10 2019 MDA	3	0	3		Α -	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-		-	-	-	-	3
10 2020 MDA	1	0	1	,													·												
Aegis BMD DMS																													
11 2021 MDA	12	0	12																										
Aegis BMD TI-12H Upgra	de Installs																												
12 2021 MDA	4	0	4																										
12 2022 MDA	1	0	1																										
Aegis BMD TI-12H Upgra	de Procuren	nent																											
13 2020 MDA	5	0																											
13 2021 MDA	3	0																											
Aegis BL 9.B/C2 (BMD 5.																													
14 2020 MDA	8	0																											
14 2021 MDA	12	0																											
14 2022 MDA	2	0	2			1		1		1	_	1	_		_							_	_	_					
				O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	J U N	n n	U G	S E P	O C T	C	)	D E C	J A N	F E B	M A R	A P R	M A Y	.	J N	U U	A U G	S E P
						E C	A N	В	A R	P	A Y				E P	C	V	)	E C	A N	В	A R		A	.				

(Units	PROC QTY	ACCEPT PRIOR TO 1 OCT	vity /	Budg	et Sı	ub Ac	tivity	:		Line		Num	ber /	Title:							Item	Nun	ıber /	Title	[DOI	DIC]:		
(Units  O F C R O # FY SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)	PROC QTY	PRIOR TO 1	RΔI						1010	90 <i>I</i> A	egis	BMD	Hard		and S	oftwa	ire						ID Shi		i	_		
0 F C R O # FY SERVICE	PROC QTY	PRIOR TO 1	RΔI						Fiscal Yo	par 2020											Fiscal Y	oar 2021						В
O	PROC QTY	PRIOR TO 1	RΔI						i iscai ii	eai 2020		Calendar	Year 20	20							i iscai i		ndar Yea	r 2021				. A L
C   R   SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)	QTY			_ [												_			. [							_		Α
	2) Installs	2019	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	U N	U L	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	U N	U L J	A U G	S E P	N C E
1 2020 MDA	,					,											,									,	,	
	5	0	5									Α -	-	-	1	-	-	-	-	-	-	-	-	4				
1 2021 MDA	5	0	5														Α -	-	-	-	-	-	-	-	-	-	-	
Aegis BL 5.4.0 (BMD 4.1.2	2) Procureme	nt																										
2 2019 MDA	10	0		-	-	-	-	-	10																			<u> </u>
3 2020 MDA	8	0								A -	-	-	-	-	8													L
Aegis BL 5.4.1 (BMD 4.2)												1	T	<u> </u>	1 1													
4 2020 MDA	1	0	1			Α -	-	-	-	-	-	-	-	<u> </u>	-	-	-	1										Щ.
Aegis BL 9.C2 (BMD 5.1)			_																									
5 2017 MDA	3	3	0																								-	<u> </u>
5 2018 MDA	8	8	0																								-	<u> </u>
5 2019 MDA 5 2020 MDA	3	0		-	-	-	-	- A -	-	- 3		1	_	1		_											-	-
5 2020 MDA 5 2021 MDA	2	0						A -	-	-	-	A -	-	-	-		- 1	2										
Aegis BL 9.C2 (BMD 5.1)												Α-	-	<u> </u>	-	-	-											_
6 2017 MDA	6	6	0																									
Aegis BL 9.C2 (BMD 5.1)			U																									_
7 2017 MDA	1	1	0																									
7 2018 MDA	3	3																									İ	
7 2019 MDA	2	0		-	-	-	2	1																			1	
7 2020 MDA	3	0	3				Α -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	
7 2021 MDA	4	0	4			-											Α -	-	-	-	-	-	-	-	-	-	-	
7 2022 MDA	2	0	2																									
Aegis BL 9.C2 (BMD 5.1)	Inline Procure	ements																										
8 2017 MDA	1	1	0																									
8 2018 MDA	3	1	2	-	-	-	1	-	-	1																		
8 2019 MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	2														
8 2020 MDA	3	0	3					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3		
8 2021 MDA	3	0	3																			Α -	-	-	-	-	-	<u></u>
Aegis BMD 3.6 to 4.X Har	dware Procur	ements																										
9 2017 MDA	1	1	0			1																						<u> </u>
9 2018 MDA	3	1	2	-	2										1												ļ	<u></u>
9 2019 MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	1							1	1		1	1			<u> </u>
				O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J 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	U U	A U G	S E P	

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 13 of 17

P-1 Line #40

Ex	hil	bit	t P	-21, Pr	oduct	ion Sc	chedu	le: P	B 20	)22 N	/lissi	ile De	efens	e Age	ency											Date	e: Ma	y 202	:1				
				ation / 1 / 17	Budge	et Act	ivity /	Bud	get	Sub	Act	ivity	:						/ <b>Title</b> dware		Softwa	are						n <b>ber</b> /		<b>E [DO</b> E	IC]:		
					lements in Each)									Fiscal Y	ear 2020											Fiscal Y	ear 2021						В
				-		ACCEPT						_					Calenda	r Year 20	020								Cale	ndar Yea	r 2021				Ĺ
0 0 0	M F R	F		SERVICE	PROC QTY	PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT		N O V		D E C	J A N	F E B	M A R	A P R	M A Y	J	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	A U G	S E P	A N C
				to 4.X Insta		2019	1001		v		C	N	В	K	K	1	N		6	P	'	V	L C	N	Ь	K	K	T	N	<u> </u>	G	Р	
_	_		17 I		1	1	1 0	T																									0
_	_		18		5					1																							0
_	-		19 [		3			_																									0
			20 1		1			+	Α	_	-	-	-	-	_	-	-	T -	T -	-	-	-	-	-	-	-	-	_	_	1			0
			DM:		1					_																							
			21 [		12	C	) 12																				Α -	-	-	-	-	-	12
Aeg	gis B	BMD	TI-1	2H Upgrad	e Installs																												
1	12	202	21 [	MDA	4	C	) 4														Α -	2	-	-	-	-	-	2					0
1	12	202	22	MDA	1	C	) 1																										1
Aeg	gis B	BMD	TI-1	2H Upgrad	e Procurer	nent																											
1	13	202	20 [	MDA	5	C	5						A -	-	-	-	-	-	-	-	5												0
1	13	202	21 [	MDA	3	C	3																		Α -	-	-	-	-	-	-	-	3
	_			2 (BMD 5.1	) Software	Upgrade I																											
_	_		20 [		8			_							Α -	-	-	-	-	8			1										0
_	_		21 [		12			_														Α -	-	-	-	-	-	-	-	-	12		0
1	14	202	22	MDA	2	C	) 2	+								1		_		1	1		1			1	1	1	1		1		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	N U J	n n	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	N U J	U U	A U G	S E P	

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 14 of 17

P-1 Line #40

Appropriation / E 0300D / 01 / 17 Cost Ele (Units in 0 F C R 0 # FY SERVICE Aegis BL 5.4.0 (BMD 4.1.2) 1 2020 MDA 1 2021 MDA Aegis BL 5.4.0 (BMD 4.1.2) 2 2019 MDA	ements n Each)  ACCEPT PRIOR TO 1 OCT QTY 2021 Installs  5 5	BAL DUE AS OF 1 OCT	o c T	et Sul	b Ac	tivity:		MD	<b>Line</b> 90 / A	egis				and S	oftwa	rΔ						<b>nber</b> / ID Shi			DIC]:	
(Units in  O F C R O # FY SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)  1 2020 MDA 1 2021 MDA Aegis BL 5.4.0 (BMD 4.1.2)	ACCEPT   PRIOR   TO 1   OCT   2021   Installs   5   5   5	BAL DUE AS OF 1 OCT	С		<b>D</b>			Fiscal Y	ear 2022					uu _	Oitwa	10				Aegi	15 DIVI	וווט ע	haera			
M F C R FY SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)  1 2020 MDA  1 2021 MDA  Aegis BL 5.4.0 (BMD 4.1.2)	PROC QTY 2021 Installs  5 5	BAL DUE AS OF 1 OCT	С		<b>D</b>			i iscai i												Eiecal V	ear 2023					
O # FY SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)  1 2020 MDA  1 2021 MDA  Aegis BL 5.4.0 (BMD 4.1.2)	PRIOR TO 1 OCT 2021  Installs  5 5 6	BAL DUE AS OF 1 OCT	С		<u> </u>						alendar	Voar 202	12							FISCAI II		ndar Year	2023			
C R FY SERVICE  Aegis BL 5.4.0 (BMD 4.1.2)  1 2020 MDA  1 2021 MDA  Aegis BL 5.4.0 (BMD 4.1.2)	PROC OCT 2021  Installs  5 5 6	AS OF 1 OCT	С								aiciidai	1641 202									Oalei					
1 2020 MDA 1 2021 MDA Aegis BL 5.4.0 (BMD 4.1.2)	5 £			V	E C	J A N	F E B	M A R	A P R	M A Y	N U J	D D	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	U N	U L	A U G	S E P
1 2021 MDA Aegis BL 5.4.0 (BMD 4.1.2)	5 (	5 0														·										
Aegis BL 5.4.0 (BMD 4.1.2)		, 0																								
	Procurement	5	-	5																						
2 2019 MDA																										
	10 10	0																								
3 2020 MDA	8 8	0																								
Aegis BL 5.4.1 (BMD 4.2) Ha	ardware Procureme	ent																								
4 2020 MDA	1	0	_																							
Aegis BL 9.C2 (BMD 5.1) Ba	ackFit Installs																									
5 2017 MDA	3 3	0																								
5 2018 MDA	8 8	3 0																								
5 2019 MDA	3 3	3 0																								
5 2020 MDA	2 2																									
5 2021 MDA	2 2																									
Aegis BL 9.C2 (BMD 5.1) Ba	ackFit Procurement	_																								
6 2017 MDA	6 6	0																								
Aegis BL 9.C2 (BMD 5.1) Inl	line Installs	1																								
7 2017 MDA	1 '																									
7 2018 MDA		3 0																								
7 2019 MDA	2 2																									
7 2020 MDA	3 3																									
7 2021 MDA	4 (		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	
7 2022 MDA	2 (	) 2		A -	-	-	2																			
Aegis BL 9.C2 (BMD 5.1) Inl																										
8 2017 MDA	1 1																									
8 2018 MDA	3 3																									_
8 2019 MDA	2 2																									
8 2020 MDA	3 3			1	- 1	1	-					I														-
8 2021 MDA		3	-	-	-	-	-	-	-	-	3															
Aegis BMD 3.6 to 4.X Hardw																										
9 2017 MDA	1 .	0																								-
9 2018 MDA	3 3																									-
9 2019 MDA	1 '	0				, 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	U U	U L	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

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 15 of 17

P-1 Line #40

Ex	hi	bi	t P	-21, Pr	oducti	ion Sc	hedu	le: P	B 202	22 Mis	sile D	efens	e Age	ency											Date	e: Ma	y 202	1				
				ation / 1 / 17	Budge	et Acti	ivity /	Bud	get S	ub A	ctivity	:						Title: ware	and S	oftwa	are						<b>nber</b> / ID Shi			DIC]:		
					lements in Each)								Figural V	ear 2022											Fiscal Y	2022						В
	П			(Units	III Eacri)	ACCEPT				_			FISCAI 1	ear 2022		Calendar	Year 201	22				-			FISCAI 10		dar Year	2023				A
	М					PRIOR	BAL		T	1_		_								_	T			_								Α
0 C 0	R	F	Υ	SERVICE	PROC QTY	TO 1 OCT 2021	AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	D D	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	N U	n n	A U G	S E P	N C E
_				to 4.X Insta	Ills																											
_			)17 N		1			-																								
_	_		18 1		5			-																								
_	_		19 1		3			4																								
	_		20 1		1	1	0																									
	_		D DMS		10		10	T	_	T	1	T .		I	I	10	T															1
	_		)21   I	MDA 2H Upgrad	12	0	12	-	-	-	-	-	-	-	-	12																
_	_		)21 N		e installs	4	0																									1
$\rightarrow$	_		022 1		1	_		Α -		1																						
				2H Upgrad			'	A -		'																						
_	_		20 1		5		0																									
_	_		21 1		3				3																							
Aeg	gis E	3L 9	9.B/C2	2 (BMD 5.1	) Software	Upgrade I	nstalls																									
	14	20	020	MDA	8	8	0																									
	14	20	21 1	MDA	12	12	0	1																								
	14	20	022 1	MDA	2	0	2		Α -	-	-	-	-	-	-	-	-	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	N U	J 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	

LI MD90 - Aegis BMD Hardware and Software Missile Defense Agency

UNCLASSIFIED
Page 16 of 17

P-1 Line #40

Exhibit P-21, Production Schedule: PB 2022 Missile Defense Agency

**Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17

P-1 Line Item Number / Title:

MD90 / Aegis BMD Hardware and Software

Aegis BMD Shipsets

Item Number / Title [DODIC]:

000	00701717	''	Media bivib Hardware and Gottware									
		Production Rates (Each / Month)			Procurement Leadtime (Months)							
MFR					Initial				Reorder			
Ref #	Manufacturer Name - Location	MSR For 2022	1-8-5 For 2022	MAX For 2022	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	C
2	Lockheed Martin - Moorestown, N.J.	1	1	10	0	0	0	0	0	0	0	C
3	Lockheed Martin - Moorestown, N.J.	1	1	8	0	0	0	0	0	0	0	C
4	Lockheed Martin - Moorestown, N.J.	1	1	6	0	0	0	0	0	0	0	C
5	Lockheed Martin - Moorestown, N.J.	1	1	8	0	0	0	0	0	0	0	0
6	Lockheed Martin - Moorestown, N.J.	1	1	11	0	0	0	0	0	0	0	C
7	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	C
8	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	0
9	Lockheed Martin - Moorestown, N.J.	1	1	1	0	0	0	0	0	0	0	C
10	Lockheed Martin - Moorestown, N.J.	1	1	5	0	0	0	0	0	0	0	C
11	Lockheed Martin - Moorestown, N.J.			12	0	0	0	0	0	0	0	C
12	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	C
13	Lockheed Martin - Moorestown, N.J.	1	1	5	0	0	0	0	0	0	0	C
14	Lockheed Martin - Moorestown, N.J.	1	1	14	0	0	0	0	0	0	0	C

<sup>&</sup>quot;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 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).

