

UNCLASSIFIED

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

May 2021



**Air Force**

*Justification Book Volume 1 of 1*

***Missile Procurement, Air Force***

UNCLASSIFIED

**UNCLASSIFIED**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

**Volume 1 Table of Contents**

**Introduction and Explanation of Contents.....Volume 1 - iii**  
**Comptroller Exhibit P-1.....Volume 1 - v**  
**Line Item Table of Contents (by Appropriation then Line Number)..... Volume 1 - ix**  
**Line Item Table of Contents (Alphabetically by Line Item Title)..... Volume 1 - xiii**  
**Exhibit P-1M, Procurement Programs - Modification Summary..... Volume 1 - xv**  
**Acronyms..... Volume 1 - xix**  
**Exhibit P-40s..... Volume 1 - 1**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Appropriation Language  
Fiscal Year (FY) 2022 Budget Estimates  
Missile Procurement, Air Force

For construction, procurement, and modification of missiles, rockets, and related equipment, including spare parts and accessories therefor, ground handling equipment, and training devices; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents, transportation of things, and overseas contingency operations, \$2,669,811,000 to remain available for obligations until September 30, 2024.

**UNCLASSIFIED**

UNCLASSIFIED

Exhibit footnotes for FY 2020 actuals and FY 2021 Enacted:

- a. 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).”**
- b. FY 2021 Enacted (for every appropriation except O&M, Army, O&M, Navy, and O&M, AF): **“Includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).”**
- c. FY 2021 Enacted (for O&M, Army, O&M, Navy, and O&M, AF): “Includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260) and funds provided by the Congress as OCO to Base Requirements in O&M Army, O&M Navy, and O&M AF.”

UNCLASSIFIED

Department of the Air Force  
 FY 2022 President's Budget  
 Exhibit P-1 FY 2022 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 May 2021

## Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
01. Ballistic Missiles	65,888	73,474	68,688
02. Other Missiles	1,721,025	1,492,458	1,682,579
03. Modification of Inservice Missiles	138,006	177,809	236,148
04. Spares and Repair Parts	72,141	98,246	81,804
05. Other Support	780,498	523,966	600,592
Total Missile Procurement, Air Force	2,777,558	2,365,953	2,669,811

UNCLASSIFIED

Department of the Air Force  
 FY 2022 President's Budget  
 Exhibit P-1 FY 2022 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 May 2021

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ballistic Missiles									
-----									
Missile Replacement Equipment - Ballistic									
1	Missile Replacement Eq-Ballistic	A		65,888		73,474		57,793	U
Ballistic Missiles									
2	Ground Based Strategic Deterrent	A						10,895	U
Total Ballistic Missiles				65,888		73,474		68,688	
Budget Activity 02: Other Missiles									
-----									
Tactical									
3	Replac Equip & War Consumables	A		4,500		4,495		7,681	U
4	AGM-183A Air-Launched Rapid Response Weapon	A						160,850	U
5	Joint Air-To-Ground Munition	A	40	10,000					U
6	Joint Air-Surface Standoff Missile	A	390	482,507	376	500,009	525	710,550	U
7	LRASM0				5	19,800			U
8	Sidewinder (AIM-9X)	A	444	155,289	331	164,769	243	107,587	U
9	AMRAAM	A	220	311,730	268	313,223	168	214,002	U
10	Predator Hellfire Missile	A	3859	299,631	4517	183,549	1176	103,684	U
11	Small Diameter Bomb	A	7078	273,288	2462	95,827	998	82,819	U
12	SMALL DIAMETER BOMB II	B	727	183,279	743	209,972	985	294,649	U



UNCLASSIFIED

Department of the Air Force  
 FY 2022 President's Budget  
 Exhibit P-1 FY 2022 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 May 2021

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Industrial Facilities									
13	Industr'l Preparedns/Pol Prevention	A		801		814		757	U
Total Other Missiles				1,721,025		1,492,458		1,682,579	
Budget Activity 03: Modification of Inservice Missiles									
-----									
Class IV									
14	Spectrum funds	A		-3					U
15	ICBM FUZE MOD	A	6	(5,000)	20		40	(57,113)	U
	Less: Advance Procurement (PY)							(-4,100)	U
				5,000				53,013	
16	ICBM FUZE MOD								
	Advance Procurement (CY)			14,497		43,450		47,757	U
	C (FY 2020 for FY 2023) (M)			(14,497)					
	C (FY 2021 for FY 2024) (M)					(43,450)			
	C (FY 2022 for FY 2025) (M)							(47,757)	
17	MM III Modifications	A		49,705		81,137		88,579	U
18	AGM-65D Maverick	A		294		298			U
19	Air Launch Cruise Missile (ALCM)	A		68,513		52,924		46,799	U
Total Modification of Inservice Missiles				138,006		177,809		236,148	
Budget Activity 04: Spares and Repair Parts									
-----									
Missile Spares and Repair Parts									
20	Msl Sprs/Repair Parts (Initial)	A		1,910		13,575		14,212	U
21	Msl Sprs/Repair Parts (Replen)	A		70,231		84,671		63,547	U

UNCLASSIFIED

Department of the Air Force  
 FY 2022 President's Budget  
 Exhibit P-1 FY 2022 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 May 2021

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
22	Initial Spares/Repair Parts	A						4,045	U
Total Spares and Repair Parts				72,141		98,246		81,804	
Budget Activity 05: Other Support									
-----									
Space Programs									
23	Cancelled Accounts	A		918					U
Special Programs									
27	Special Update Programs	A		136,812		23,501		30,352	U
999	Classified Programs			642,768		500,465		570,240	U
Total Other Support				780,498		523,966		600,592	
Total Missile Procurement, Air Force				2,777,558		2,365,953		2,669,811	

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

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

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
1	01	03	00099L	Missile Replacement Eq-Ballistic.....	Volume 1 - 1
2	01	04	MGBSD0	Ground Based Strategic Deterrent.....	Volume 1 - 11

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
3	02	02	222000	Replac Equip & War Consumables.....	Volume 1 - 15
4	02	02	ARRW00	AGM-183A Air-Launched Rapid Response Weapon.....	Volume 1 - 19
5	02	02	JAGM00	Joint Air-To-Ground Munition.....	Volume 1 - 27
6	02	02	JASSM0	Joint Air-Surface Standoff Missile.....	Volume 1 - 29
7	02	02	LRASM0	LRASM0.....	Volume 1 - 41
8	02	02	M09HAI	Sidewinder (AIM-9X).....	Volume 1 - 51
9	02	02	MAMRA0	AMRAAM.....	Volume 1 - 69
10	02	02	PRDTA2	Predator Hellfire Missile.....	Volume 1 - 79

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
11	02	02	SDB000	Small Diameter Bomb.....	Volume 1 - 89
12	02	02	SDB002	SMALL DIAMETER BOMB II.....	Volume 1 - 99
13	02	05	000042	Industr'l Preparedns/Pol Prevention.....	Volume 1 - 111

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
14	03	01	21SPEC	Spectrum Funds.....	Volume 1 - 113
15	03	01	M30FLH	ICBM FUZE MOD.....	Volume 1 - 115
16	03	01	M30FLH	ICBM FUZE MOD, Advance Procurement.....	Volume 1 - 123
17	03	01	M30MLG	MM III Modifications.....	Volume 1 - 127
18	03	01	M65DAG	AGM-65D Maverick.....	Volume 1 - 139
19	03	01	MALCBG	Air Launch Cruise Missile (ALCM).....	Volume 1 - 141

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
20	04	10	00098A	Msl Sprs/Repair Parts (Initial).....	Volume 1 - 155
21	04	10	00098K	Msl Sprs/Repair Parts (Replen).....	Volume 1 - 159

***Appropriation 3020F: Missile Procurement, Air Force***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
23	05	01	CAADJS	Cancelled Accounts.....	Volume 1 - 163
25	05	04	MSPPRG	Special Update Programs.....	Volume 1 - 165

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

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

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
AGM-183A Air-Launched Rapid Response Weapon	ARRW00	4	02	02.....	Volume 1 - 19
AGM-65D Maverick	M65DAG	18	03	01.....	Volume 1 - 139
AMRAAM	MAMRA0	9	02	02.....	Volume 1 - 69
Air Launch Cruise Missile (ALCM)	MALCBG	19	03	01.....	Volume 1 - 141
Cancelled Accounts	CAADJS	23	05	01.....	Volume 1 - 163
Ground Based Strategic Deterrent	MGBSD0	2	01	04.....	Volume 1 - 11
ICBM FUZE MOD	M30FLH	15	03	01.....	Volume 1 - 115
ICBM FUZE MOD, Advance Procurement	M30FLH	16	03	01.....	Volume 1 - 123
Industr'l Preparedns/Pol Prevention	000042	13	02	05.....	Volume 1 - 111
Joint Air-Surface Standoff Missile	JASSM0	6	02	02.....	Volume 1 - 29
Joint Air-To-Ground Munition	JAGM00	5	02	02.....	Volume 1 - 27
LRASM0	LRASM0	7	02	02.....	Volume 1 - 41
MM III Modifications	M30MLG	17	03	01.....	Volume 1 - 127
Missile Replacement Eq-Ballistic	00099L	1	01	03.....	Volume 1 - 1
Msl Sprs/Repair Parts (Initial)	00098A	20	04	10.....	Volume 1 - 155
Msl Sprs/Repair Parts (Replen)	00098K	21	04	10.....	Volume 1 - 159
Predator Hellfire Missile	PRDTA2	10	02	02.....	Volume 1 - 79

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
Replac Equip & War Consumables	222000	3	02	02.....	Volume 1 - 15
SMALL DIAMETER BOMB II	SDB002	12	02	02.....	Volume 1 - 99
Sidewinder (AIM-9X)	M09HAI	8	02	02.....	Volume 1 - 51
Small Diameter Bomb	SDB000	11	02	02.....	Volume 1 - 89
Special Update Programs	MSPPRG	25	05	04.....	Volume 1 - 165
Spectrum Funds	21SPEC	14	03	01.....	Volume 1 - 113

**UNCLASSIFIED**



**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement  
Exhibit P-1M, Procurement Programs - Modification Summary  
(Listing by Model)

**Lookup Matrix by Model**

<b>Model:</b>	LGM-30G		
<b>Modification P-40a Aggregated Items Title:</b>	MM III Modifications		
<b>Item Number</b>	<b>Item Title</b>		<b>Applies to Multiple Models</b>
<b>Uncategorized</b>			
5910	MINUTEMAN MEECN MODIFICATION		No
5921	MM LCC Block Upgrades		No
5928	T-9 Launch Facility Trainer Conversion (T-9)		No
5942	LGM-30G Launch Control Center Break-In-Kit (LCCB)		No
5947	A/D Switch Replacement		No
5948	CMPT upgrade		No
5949	Fast Rising B-Plug Service Extension Program (FRBP SLEP)		No
99999X	Low Cost Modifications		No
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>		<b>Applies to Multiple Models</b>
5915	ICBM Fuze Modernization		No
5916	ICBM Cryptography Upgrade Increment II		No
5925	MM III Auto Switching Unit (ASU)		No
5932	LGM-30G Remote Visual Assessment Phase II (RVA II)		No

<b>Model:</b>	AGM-86B		
<b>Modification P-40a Aggregated Items Title:</b>	Air Launch Cruise Missile (ALCM)		
<b>Item Number</b>	<b>Item Title</b>		<b>Applies to Multiple Models</b>
<b>Uncategorized</b>			

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement  
 Exhibit P-1M, Procurement Programs - Modification Summary  
 (Listing by Model)

<b>Model:</b>	<b>AGM-86B</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>Air Launch Cruise Missile (ALCM)</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
_0468	AGM-86B Low Cost Mods	No
860011	Support Equipment	No
860101	AGM-86B Service Life Extension Program 1	No
860103	Warhead Arming Device (WAD)	No
860105	Guided Missile Flight Controller (GMFC)	No
860106	W-10 Cable	No
860107	Fuze Assembly	No
860109	Flight Data Transmitter	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
860009	AGM-86B CALCM/ALCM Test Instrumentation Kit	No
860104	Rotary Switch (RS)	No
860108	Inertial Navigation Element (INE)	No

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement  
 Exhibit P-1M, Procurement Programs - Modification Summary  
 (Funding for Modifications)

**Funding (\$ M)**

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
<b>Exhibit P-40a</b>										
MINUTEMAN MEECN MODIFICATION	129.384	-	-	2.674	-	2.674	-	-	-	-
MM LCC Block Upgrades	2.311	14.943	26.627	2.136	-	2.136	-	-	-	-
T-9 Launch Facility Trainer Conversion (T-9)	33.286	2.230	1.801	-	-	-	-	-	-	-
LGM-30G Launch Control Center Break-In-Kit (LCCB)	0.226	-	-	-	-	-	-	-	-	-
A/D Switch Replacement	-	-	-	4.534	-	4.534	-	-	-	-
CMPT upgrade	-	0.258	-	-	-	-	-	-	-	-
Fast Rising B-Plug Service Extension Program (FRBP SLEP)	0.000	-	-	-	-	-	-	-	-	-
Low Cost Modifications	12.140	0.542	0.160	4.899	-	4.899	-	-	-	-
AGM-86B Low Cost Mods	1.798	0.298	0.100	0.100	-	0.100	-	-	-	-
Support Equipment	0.190	19.691	9.658	4.986	-	4.986	-	-	-	-
AGM-86B Service Life Extension Program 1	9.613	0.894	3.588	3.648	-	3.648	-	-	-	-
Warhead Arming Device (WAD)	7.501	0.006	0.009	0.010	-	0.010	-	-	-	-
Guided Missile Flight Controller (GMFC)	1.386	0.009	3.660	4.200	-	4.200	-	-	-	-
W-10 Cable	0.646	0.644	0.749	0.371	-	0.371	-	-	-	-
Fuze Assembly	0.000	3.178	4.591	4.711	-	4.711	-	-	-	-
Flight Data Transmitter	-	-	-	3.400	-	3.400	-	-	-	-
<b>Exhibit P-3a</b>										
ICBM Fuze Modernization	55.719	19.497	43.450	100.770	0.000	100.770	-	-	-	-
ICBM Cryptography Upgrade Increment II	90.281	26.288	33.337	10.782	0.000	10.782	-	-	-	-
MM III Auto Switching Unit (ASU)	0.247	1.025	1.791	8.964	0.000	8.964	-	-	-	-

**UNCLASSIFIED**

**UNCLASSIFIED**

Air Force • Budget Estimates FY 2022 • Procurement  
 Exhibit P-1M, Procurement Programs - Modification Summary  
 (Funding for Modifications)

<b>Modification P-40a Item Title P-3a Modification Title</b>	<b>PYS</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>
LGM-30G Remote Visual Assessment Phase II (RVA II)	3.400	4.419	17.421	54.590	0.000	54.590	-	-	-	-
AGM-86B CALCM/ALCM Test Instrumentation Kit	109.537	10.433	13.654	10.898	0.000	10.898	-	-	-	-
Rotary Switch (RS)	13.476	8.262	6.090	6.260	0.000	6.260	-	-	-	-
Inertial Navigation Element (INE)	0.000	25.098	10.825	8.215	0.000	8.215	-	-	-	-
<b>Totals (Total Obligation Authority)</b>										
<b>Total Obligation Authority</b>	<b>471.141</b>	<b>137.715</b>	<b>177.511</b>	<b>236.148</b>	<b>0.000</b>	<b>236.148</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**UNCLASSIFIED**

# UNCLASSIFIED

## ACRONYMS

### *GENERAL ACRONYMS*

A&AS	- Advisory & Assistance Services
ABIDES	- Automated Budget Interactive Data Environment System
ACAT	- Acquisition Category
ACTD	- Advanced Concept Technology Demonstration
AGM	- Air-to-Ground Missile
AIM	- Air Intercept Missile
AIS	- Avionics Intermediate Shop
ACMI	- Aircraft Combat Maneuvering Instrumentation
AMRAAM	- Advanced Medium-Range Air-to-Air Missile
APPN	- Appropriation
ATD	- Advanced Technology Development
BA	- Budget Activity
BES	- Budget Estimate Submission
BY	- Budget Year
C3	- Command, Control, and Communication System
CFE	- Contractor Furnished Equipment
CONOPS	- Concept of Operation
CONUS	- Continental United States
CPMS	- Comprehensive Power Management System
CPT	- Cockpit Procedures Trainer
CRA	- Continuing Resolution Authority
CTS	- Countermeasures Test Set
CY	- Current Year
ECCM	- Electronic Counter Counter-Measures
ECM	- Electronic Counter Measures
ECO	- Engineering Change Orders
EOQ	- Economic Order Quantity
ECP	- Engineering Change Proposal
EPA	- Economic Price Adjustment
EW	- Electronic Warfare
EWAIISP	- Electronic Warfare Avionics Integration Support Facility
FLIR	- Forward Looking Infra Red

UNCLASSIFIED

## UNCLASSIFIED

FOT&E	- Follow-on Test and Evaluation
FOC	- Fully Operational Capability
FLTS	- Flight Line Test Set
FPIF	- Fixed Price Incentive Firm
FPIS	- Fixed Price Incentive Fee, Successive Targets
FY	- Fiscal Year
GANS	- Global Access Navigation & Safety
GATM	- Global Air Traffic Management
GFE	- Government Furnished Equipment
GFP	- Government Furnished Property
GPS	- Global Positioning System
GSE	- Ground Support Equipment
ICS	- Interim Contractor Support
IOC	- Initial Operating Capability
IT	- Information Technology
JUON	- Joint Urgent Operational Need
MAIS	- Major Automated Information System Program
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OCO	- Overseas Contingency Operations
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PBR	- Program Budget Review
PMA	- Program Management Administration
PMC	- Procurement Method Code
PNO	- Acquisition Program Number (MDAP Codes)
PR	- Purchase Request
PRCP	- Program Resource Collection Process
PTT	- Part Task Trainer
PY	- Prior Year
R&M	- Reliability and Maintainability

UNCLASSIFIED

## UNCLASSIFIED

RAA	- Rapid Acquisition Authority
RDT&E	- Research, Development, Test and Evaluation
RWR	- Radar Warning Receiver
ROM	- Rough Order of Magnitude
SS	- Sole Source
SOF	- Special Operation Force
TAF	- Tactical Air Force
TCAS	- Traffic Collision Alert and Avoidance System
TEWS	- Tactical Electronic Warfare System
TISS	- TEWS Intermediate Support System
TOA	- Total Obligation Authority
WCF	- Working Capital Fund
WRM	- War Reserve Material
WST	- Weapon System Trainer
UAV	- Unmanned Aerial Vehicle
XML	- Extensible Markup Language

### ***BASE / ORGANIZATIONAL ACRONYMS***

ACC	- Air Combat Command
AETC	- Air Education & Training Command
AFCAO	- Air Force Computer Acquisition Office
AFCESA	- Air Force Civil Engineering Support Agency
AFCIC	- AF Communications & Information Center
AFCSC	- Air Force Cryptologic Service Center
AFESC	- Air Force Engineering Services Center
AFGWC	- Air Force Global Weather Central
AFIT	- Air Force Institute of Technology
AFLCMC	- Air Force Life Cycle Management Center
AFMC	- Air Force Materiel Command
AFMETCAL	- Air Force Metrology and Calibration Office
AFMLO	- Air Force Medical Logistics Office
AFOSI	- Air Force Office of Special Investigation
AFOTEC	- Air Force Operational Test & Evaluation Center
AFPC	- Air Force Personnel Center
AFPSL	- AF Primary Standards Lab

UNCLASSIFIED

## UNCLASSIFIED

AFR	- Air Force Reserve
AFSOC	- AF Special Operations Command
AFSPC	- Air Force Space Command
AIA	- Air Intelligence Agency
ALC	- Air Logistics Center
AMC	- Air Mobility Command
ANG	- Air National Guard
ASC	- Aeronautical Systems Center
AETC	- Air Education Training Command
AU	- Air University
AWS	- Air Weather Service
CIA	- Central Intelligence Agency
DGSC	- Defense General Support Center
DLA	- Defense Logistics Center
DOE	- Department of Energy
DPSC	- Defense Personnel Support Center
DSCC	- Defense Supply Center, Columbus
DTIC	- Defense Technical Information Center
ER	- Eastern Range
ESC	- Electronic Systems Center
FAA	- Federal Aviation Agency
FBI	- Federal Bureau of Investigation
GSA	- General Services Administration
JCS	- Joint Chiefs of Staff
NATO	- North Atlantic Treaty Organization
OSD	- Office of the Secretary of Defense
PACAF	- Pacific Air Forces
USAF	- United States Air Force
USAFA	- United States Air Force Academy
USAFE	- United States Air Force Europe
USCENTCOM	- United States Central Command
USEUCOM	- United States European Command
USMC	- United States Marine Corps
USSTRATCOM	- United States Strategic Command
WP AFB	- Wright-Patterson AFB, OH

UNCLASSIFIED



## UNCLASSIFIED

### ***CONTRACT METHOD / TYPE ACRONYMS***

C	- Competitive
BA	- Basic Agreement
BOA	- Basic Ordering Agreement
BPA	- Blanket Purchasing Agreement
CS	- Cost Sharing
IDDQ	- Indefinite Delivery, Definite Quantity
IDIQ	- Indefinite Delivery, Indefinite Quantity
IDRT	- Indefinite Delivery, Requirements
Letter	- Letter
LH	- Labor-hour
MIPR	- Military Interdepartmental Purchase Request
MIPR-C	- Military Interdepartmental Purchase Request - Competitive
MIPR-OPT	- Military Interdepartmental Purchase Request - Option
MIPR-OTH	- Military Interdepartmental Purchase Request – Other
MIPR-SS	- Military Interdepartmental Purchase Request - Sole Source
OPT	- Option
OTH	- Other
PO	- Project Order
REQN	- Requisition
SS	- Sole Source
T&M	- Time and Materials
UCA	- Undefinitized Contract Action
WP	- Work Project

### ***CONTRACTED BY ACRONYMS***

11 WING	- 11th Support Wing, Washington, DC
ACC	- Air Combat Command, Langley AFB, VA
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AAC	- Air Armament Center, Eglin AFB, FL
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AETC	- Air Education and Training Command, Randolph AFB, TX
AFCIC	- Air Force Communications and Information Center, Washington, DC
AFCESA	- Air Force Civil Engineering Support Agency, Tyndall AFB, FL
AFFTC	- Air Force Flight Test Center, Edwards AFB, CA

UNCLASSIFIED

## UNCLASSIFIED

AFLCMC	- Air Force Life Cycle Management Center, Wright-Patterson AFB, OH
AFMC	- Air Force Materiel Command, Wright-Patterson AFB, OH
AFMETCAL	- Air Force Metrology and Calibration Office, Heath, Ohio
AFMLO	- Air Force Medical Logistics Office, Ft Detrick, MD
AIA	- Air Intelligence Agency, Kelly AFB, TX
AMC	- Air Mobility Command, Scott AFB, IL
ASC	- Aeronautical Systems Center, Wright-Patterson AFB, OH & Eglin AFB, FL
AFWA	- Air Force Weather Agency, Offutt AFB, NE
DGSC	- Defense General Support Center, Richmond, VA
DPSC	- Defense Personnel Support Center, Philadelphia, PA
ER	- Eastern Range, Patrick AFB, FL
ESC	- Electronic Systems Center, Hanscom AFB, MA
HSC	- Human Services Center, Brook AFB, TX
OC-ALC	- Oklahoma City Air Logistics Center, Tinker AFB, OK
OO-ALC	- Ogden Air Logistics Center, Hill AFB, UT
SMC	- Space & Missile Systems Center, Los Angeles AFB, CA
US STRATCOM	- US Strategic Command, Offutt AFB, NE
WACC	- Washington Area Contracting Center, Washington DC
WR	- Western Range, Vandenberg AFB, CA
WR-ALC	- Warner-Robins Air Logistics Center, Robins AFB, GA
AFSPC	- Air Force Space Command, Peterson AFB, CO
HQ ANG	- Headquarters, Air National Guard, Washington, DC
USAFE	- United States Air Force Europe, Ramstein AB, GE
USAFA	- United States Air Force Academy, Colorado Springs, CO

### ***IDENTIFICATION CODES***

Code "A"	- Line items of material which have been approved for Air Force service use.
Code "B"	- Line items of material that have not been approved for Service use
OBAN	- Operating Budget Account Number, 2-digit code for unit allocated funds

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 3: Missile Replacement Equipment - Ballistic

**P-1 Line Item Number / Title:**  
00099L / Missile Replacement Eq-Ballistic

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0101213F

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	65.888	73.474	57.793	-	57.793	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	65.888	73.474	57.793	-	57.793	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>65.888</b>	<b>73.474</b>	<b>57.793</b>	-	<b>57.793</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	0.257	-	0.257	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This program funds replacement of organizational and intermediate level support equipment for all out-of-production ballistic missile systems. Equipment procured is used for missile weapon systems maintenance and testing at organizational/intermediate (base/field) launch control facilities, as well as missile testing facilities. Equipment and qualified minor construction costs related to depot activation. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Related Research, Development, Test & Evaluation, Air Force funding is contained in PE 0101213F.

- Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER) program replaces and updates obsolete build and test equipment.
- Ballistic Missile Items Less Than 5 Million: Support Equipment Less Than 5M procures low cost new, modified or replacement support equipment, to include facilities and other equipment to support programmed depot maintenance capability activation. This also includes efforts required to prepare for re-location of T-41 trainer from Malmstrom AFB to Vandenberg AFB.
- MM Power Panels (PPM): Minuteman Power Panels Mod (PPM) replaces obsolete and unsupported power distribution panels within Launch Control Centers and Launch Facilities. The LGM-30G Power Panels Modification modernizes the antiquated power distribution system to improve reliability and sustainability at each of the three wings: Malmstrom, Minot, and FE Warren. Installation of the power panels requires extensive demolition of existing components, relocation of all electrical equipment and installation of the new equipment. Effort also includes technical data and installation necessary for full operation capability of the trainer power panel modification to support PPM.
- Payload Transporter Replacement (PTR): Provides nuclear certified tractor and trailer to emplace, extract, and transport the reentry system, the Propulsion System Rocket Engine, and the guidance systems. Replaces current payload transporter to meet USSTRATCOM security requirements and addresses supportability issues. Required to sustain Minuteman III operations through fielding of Ground Based Strategic Deterrent (GBSD) in 2036.
- Performance Assessment Data System Communication Equipment Interface Unit (PADS CEIU): Performance Assessment Data System (PADS) is used to collect and analyze Missile Guidance Computer (MGC) data, Launch Facility (LF) faults and anomalies, as well as LF security and Environmental Control System (ECS) data. PADS is a critical MM III legacy data system, developed in the late 1970s and redesigned in 1996-1999, using commercial software. This program addresses PADS reliability, by updating software to meet Air Force software security requirements and to conform to the Air Force standard desktop configuration. PADS Communications Equipment Interface Unit (CEIU) is used to transmit MM III Inertial Measurement Unit (IMU) Performance Data (IPD) from the Launch Control Center (LCC) to the

UNCLASSIFIED

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 3: Missile Replacement Equipment - Ballistic		<b>P-1 Line Item Number / Title:</b> 00099L / Missile Replacement Eq-Ballistic
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0101213F
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>PADS at the support base via telephone lines. CEIU is unclassified equipment, but interfaces with both classified and non-classified systems. This program will update the current CEIU. The change to CEIU design will no longer utilize a modem but will instead use internet protocol (IP). PADS CEIU will support operations through the fielding of Ground Based Strategic Deterrent (GBSD) and is required by AFGSC by the end of FY24. This is a FY22 Procurement New Start.</p> <ul style="list-style-type: none"><li>• Reentry Field Support Equipment (RFSE): RFSE replaces the current reentry system test set. RFSE will increase the Mean Time Between Failure, eliminate unneeded Mk12 functions, and add new Mk21 functions. It will provide capability to meet Department of Energy mandated Limited Life Component warhead swaps and to test electrical continuity during buildup of Minuteman III reentry systems.</li><li>• Transporter Erector Replacement Program (TERP): The Transporter Erector Replacement Program (TERP) replaces the current transporter erector used to emplace, extract and transport MM III boosters to and from launch facilities. The TERP program will also update existing drawings, specifications and technical orders to eliminate parts obsolescence and support operations through the fielding of Ground Based Strategic Deterrent (GBSD) in 2036.</li></ul> <p>The FY2022 funding request was reduced by \$11.634 million to account for the availability of prior year execution balances</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 3: Missile Replacement Equipment - Ballistic **P-1 Line Item Number / Title:** 00099L / Missile Replacement Eq-Ballistic

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0101213F

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Ballistic Missile Items Less Than \$5 Million				- / -	- / 4.578	- / 3.606	- / 3.477	- / -	- / 3.477
P-40a	MM Power Panels (PPM)				- / -	- / 3.817	- / -	- / -	- / -	- / -
P-40a	Payload Transporter Replacement (PTR)				- / -	- / 18.625	- / 39.741	- / 44.216	- / -	- / 44.216
P-40a	Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II)				- / -	- / 0.000	- / 0.000	- / 7.900	- / -	- / 7.900
P-40a	Reentry Field Support Equipment (RFSE)				- / -	- / 0.561	- / -	- / -	- / -	- / -
P-40a	Transporter Erector Replacement Program (TERP)				- / -	- / 38.307	- / 30.127	- / 2.200	- / -	- / 2.200
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / 65.888	- / 73.474	- / 57.793	- / -	- / 57.793

\*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. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

**Justification:**  
 The program, Missile Replacement Eq-Ballistic P-40A Category LGM-30G Item Performance Assessment Data System communication Equipment Interface Unit (PADS CEIU), is a new start.

FY22 funding provides replacement support equipment items for an aging inventory of equipment which has become increasingly costly to maintain. These items will increase ballistic missile system reliability and maintainability by providing state-of-the-art maintenance repair and testing capability. The items are required to bridge the gap to the National Defense Strategy and National Military Strategy directed nuclear force modernization activities. Requirements are jointly determined by Headquarters United States Air Force (HQ USAF), Air Force Materiel Command (AFMC) and Air Force Global Strike Command (AFGSC) and are based on established allowance standards.

Items requested in FY22 are displayed on the attached P-40A. Items procured during execution may change based on critical equipment needed to support current and emerging Air Force mission requirements.

- Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER): PIGA/G6B4 BER program replaces unsustainable equipment due to obsolescence issues affecting the ability to test and build the PIGA and G6B4.
- Ballistic Missile Items Less Than 5 Million: Procured low cost support equipment required to sustain Minuteman III operations through fielding of the Ground Based Strategic Deterrent (GBSD).
- Payload Transporter Replacement (PTR): FY22 funding will enable the award of a contract option to procure 6 additional units.
- Performance Assessment Data System Communication Equipment Interface Unit (PADS CEIU): This is an FY22 production new start. FY22 funding will enable the award of a production contract for 29 units.
- Transporter Erector Replacement Program (TERP): FY22 funds will support the fielding of TERP assets.

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2022 Air Force															<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 01 / 3						<b>P-1 Line Item Number / Title:</b> 00099L / Missile Replacement Eq-Ballistic						<b>Aggregated Items Title:</b> Ballistic Missile Items Less Than \$5 Million							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Various</b>																				
Various	A		-	-	-	-	-	4.578	-	-	3.606	-	-	3.477	-	-	-	-	-	3.477
<b>Subtotal: Various</b>			-	-	-	-	-	<b>4.578</b>	-	-	<b>3.606</b>	-	-	<b>3.477</b>	-	-	-	-	-	<b>3.477</b>
<b>Total</b>			-	-	-	-	-	<b>4.578</b>	-	-	<b>3.606</b>	-	-	<b>3.477</b>	-	-	-	-	-	<b>3.477</b>

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

**Remarks:**  
Support Equipment Less Than \$5M procures low cost new, modified or replacement support equipment, to include facilities and other equipment to support programmed depot maintenance capability activation.

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 01 / 3	<b>P-1 Line Item Number / Title:</b> 00099L / Missile Replacement Eq-Ballistic	<b>Aggregated Items Title:</b> MM Power Panels (PPM)
---	---	---

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>LGM-30G</b>																				
LGM-30G Minuteman III Power Panels (PPM)	A		-	-	-	-	-	3.817	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: LGM-30G</b>			-	-	-	-	-	<b>3.817</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			-	-	-	-	-	<b>3.817</b>	-	-	-	-	-	-	-	-	-	-	-	-

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

**Remarks:**

Description: The LGM-30G Power Panels Modification (PPM) modernized the antiquated power distribution system to improve reliability and sustainability at each of the three wings: Malmstrom, Minot, and FE Warren. Installation of the power panels required extensive demolition of existing components, relocation of all electrical equipment and installation of the new equipment. Effort also included technical data and installation necessary for full operation capability of the trainer power panel modification to support PPM.

Justification: Program completed installation in FY20.

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 01 / 3 **P-1 Line Item Number / Title:** 00099L / Missile Replacement Eq-Ballistic **Aggregated Items Title:** Payload Transporter Replacement (PTR)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>LGM-30G</b>																				
LGM-30G Payload Transporter Replacement (PTR)	A		-	-	-	9.313	2	18.625	7.948	5	39.741	7.369	6	44.216	-	-	-	7.369	6	44.216
<b>Subtotal: LGM-30G</b>			-	-	-	-	-	<b>18.625</b>	-	-	<b>39.741</b>	-	-	<b>44.216</b>	-	-	-	-	-	<b>44.216</b>
<b>Total</b>			-	-	-	-	-	<b>18.625</b>	-	-	<b>39.741</b>	-	-	<b>44.216</b>	-	-	-	-	-	<b>44.216</b>

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

**Remarks:**  
 Description  
 Provides nuclear certified tractor and trailer to emplace, extract and transport the reentry system, Propulsion System Rocket Engine, and guidance systems. Replaces current payload transporter to meet United States Strategic Command (USSTRATCOM) security requirements and addresses supportability issues. PTR will update existing drawings, specifications, and technical orders to eliminate parts obsolescence and address the intended usage through fielding of Ground Based Strategic Deterrent (GBSD).

Justification: FY22 funds will be used to produce six Payload Transporter Replacement units and associated PMA efforts.



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2022 Air Force															<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 01 / 3										<b>P-1 Line Item Number / Title:</b> 00099L / Missile Replacement Eq-Ballistic					<b>Aggregated Items Title:</b> Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II)				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>LGM-30G</b>																				
Performance Assessment Data System Comm Equipment Interface Unit (PADS CEIU II)	A		-	-	-	-	-	0.000	-	-	0.000	0.272	29	7.900	-	-	-	0.272	29	7.900
<b>Subtotal: LGM-30G</b>			-	-	-	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>7.900</b>	-	-	-	-	-	<b>7.900</b>
<b>Total</b>			-	-	-	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>7.900</b>	-	-	-	-	-	<b>7.900</b>

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

**Remarks:**  
This program, Missile Replacement Eq-Ballistic P-40A Category LGM-30G Item Performance Assessment Data System Communication Equipment Interface Unit (PADS CEIU), is a new start.

Description: Performance Assessment Data System (PADS) is used to collect and analyze Missile Guidance Computer (MGC) data, Launch Facility (LF) faults and anomalies, as well as LF security and Environmental Control System (ECS) data. PADS is a critical MM III legacy data system, developed in the late 1970s and redesigned in 1996-1999, using commercial software. This program addresses PADS reliability, by updating software to meet Air Force software security requirements and to conform to the Air Force standard desktop configuration.

PADS Communications Equipment Interface Unit (CEIU) is used to transmit MM III Inertial Measurement Unit (IMU) Performance Data (IPD) from the Launch Control Center (LCC) to the PADS at the support base via telephone lines. CEIU is unclassified equipment, but interfaces with both classified and non-classified systems. This program will update the current CEIU. The change to CEIU design will no longer utilize a modem but will instead use internet protocol (IP). Program will produce 29 updated CEIUs and will upgrade 48 LCCs with fiber optics.

Justification: This is an FY22 production new start. FY22 funding enables the award of a production contract to procure 29 units.

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 01 / 3 **P-1 Line Item Number / Title:** 00099L / Missile Replacement Eq-Ballistic **Aggregated Items Title:** Reentry Field Support Equipment (RFSE)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>LGM-30G</b>																				
LGM-30G Reentry Field Support Equipment (RFSE)	A		-	-	-	-	-	0.561	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: LGM-30G</b>			-	-	-	-	-	<b>0.561</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			-	-	-	-	-	<b>0.561</b>	-	-	-	-	-	-	-	-	-	-	-	-

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

**Remarks:**  
 Description: The Reentry System Field Support Equipment (RFSE) program produced test sets to replace the aging and obsolete Reentry System Test Set (RSTS) and the Safety Enhanced Reentry Vehicle (SERV) Field Test Set (SFTS). The RSTS was built in the late 1960s, using early 1960s technology. The RSTS was designed to have a Mean Time Between Failures (MTBF) of approximately 3000 hours but has degraded to about 24 hours at RFSE program initiation. The replacement effort consisted of procuring Reentry System Test Consoles (RSTC), Forward Section Test Sets (FSTS), and sets of support equipment consisting of a RSTC Alignment Console and two FSTS calibration boxes per set. This procurement action fulfilled the requirements of Air Force Global Strike Command.

The test sets are used to functionally test Mk12A and Mk21 Reentry Systems and the Mk12A Reentry Vehicle's Forward Sections and support the Minuteman III Intercontinental Ballistic Missile (ICBM) weapon system ensuring its viability to 2030 and beyond.

Justification: This program will be completed in FY21.

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2022 Air Force														<b>Date:</b> May 2021					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 01 / 3						<b>P-1 Line Item Number / Title:</b> 00099L / Missile Replacement Eq-Ballistic						<b>Aggregated Items Title:</b> Transporter Erector Replacement Program (TERP)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>LGM-30G</b>																				
LGM-30G Transporter Erector Replacement Program (TERP)	A		-	-	-	5.472	7	38.307	3.766	8	30.127	-	-	2.200	-	-	-	-	-	2.200
<b>Subtotal: LGM-30G</b>			-	-	-	-	-	<b>38.307</b>	-	-	<b>30.127</b>	-	-	<b>2.200</b>	-	-	-	-	-	<b>2.200</b>
<b>Total</b>			-	-	-	-	-	<b>38.307</b>	-	-	<b>30.127</b>	-	-	<b>2.200</b>	-	-	-	-	-	<b>2.200</b>

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

**Remarks:**  
 Description: The Transporter Erector Replacement Program (TERP) replaces the current transporter erector used to emplace, extract and transport MM III boosters to and from launch facilities. TERP will update existing drawings, specifications and technical orders to eliminate parts obsolescence and address the intended usage through fielding of Ground Based Strategic Deterrent (GBSD).  
 Justification: FY22 funding will be used to support continued fielding of procured TERP assets.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 4: Ballistic Missiles

**P-1 Line Item Number / Title:**  
MGBSD0 / Ground Based Strategic Deterrent

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	10.895	-	10.895	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	10.895	-	10.895	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>10.895</b>	-	<b>10.895</b>	-	-	-	-	-	-

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

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

**Description:**

The Ground Based Strategic Deterrent (GBSD) program will design, develop, produce and deploy a replacement for the current Minuteman III (MM III) Intercontinental Ballistic Missile (ICBM) weapon system in order to maintain a safe, secure, reliable, and effective nuclear deterrent. The GBSD program will deliver a fully integrated weapon system beginning in Fiscal Year 2029 to lower lifecycle costs and to close key capability gaps and vulnerabilities identified in the GBSD Capabilities Based Assessment, GBSD Capabilities Development Document, and the GBSD Analysis of Alternatives. GBSD will also mitigate ground based deterrent degradation due to MM III component age-out and attrition.

The Air Force is developing a new Aerospace Vehicle Equipment (AVE) (flight system) for the GBSD weapon system to replace the MM III flight system. The GBSD AVE will consist of a boost propulsion subsystem, a post-boost propulsion subsystem, a guidance, navigation, and control (GN&C) subsystem, and a re-entry subsystem. The boost propulsion subsystem will be comprised of a 3-stage solid rocket booster. The Air Force is procuring the 3-stage rocket booster, interstage structures, and all associated test and support equipment. The post-boost propulsion subsystem will be comprised of a liquid-fueled rocket propulsion system integrated into a post-boost attitude control module (PBACM) structure, as well as all guidance, navigation, and control components. The Air Force is procuring the liquid-fueled rocket propulsion system, post-boost attitude control module structure, the Guidance, Navigation, and Control (GN&C) system, and all the associated test and support equipment. The Air Force will also procure reentry systems including the payload deployment module and shroud.

The Air Force will convert MM III Launch Centers (LC) and Launch Facilities (LF) to the GBSD weapon system configuration across three operational wings. The weapons system components required as part of the overall conversion are integral for the successful deployment of the weapon system.

The GBSD program will include prime contractor development of applicable support equipment, data, flight test hardware and infrastructure, and training systems while examining and mitigating risk during the MM III to GBSD transition. The support equipment may include, but is not limited to, the Engineering Units for the Transporter Erector, Payload Transporter, Missile Transporter, Post Boost Altitude Control Module Transporter, Command and Control, and Secondary Launch Platform- Airborne. This program includes any needed nuclear surety and certification and system vulnerability assessments. Additionally, the GBSD program funds all required developmental and operational test and evaluation activities to meet initial and full operational capability milestones including, but not limited to, developing, improving and modernizing test capabilities essential to reaching those milestones when existing test capabilities are inadequate or non-existent.

**KS-75 Life of Type Buy (LOTB)**

The Air Force is developing a common cryptographic device, and the supporting equipment, used in multiple subsystems and/or networks throughout the GBSD weapons system to reduce risk and enable the future GBSD Concept of Operations. The Air Force has partnered with the National Nuclear Security Administration (NNSA) via Sandia National Laboratories (SNL) as the Technical Design Agent responsible for

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 4: Ballistic Missiles		<b>P-1 Line Item Number / Title:</b> MGBSD0 / Ground Based Strategic Deterrent
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>the design, development, test, qualification, and certification of the KS-75 cryptographic device. The Air Force plans to procure COTS parts to ensure lot integrity of critical components within the KS-75, eliminate costly re-design if parts become unavailable in the future, reduce security risk of counterfeit parts entering the design while also reducing future production risk and increasing performance and reliability.</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p> <p>Funding for this exhibit contained in PE 0101233F.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 01: Ballistic Missiles / BSA 4: Ballistic Missiles **P-1 Line Item Number / Title:** MGBSD0 / Ground Based Strategic Deterrent

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

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Ground Based Strategic Deterrent		B		- / -	- / 0.000	- / 0.000	- / 10.895	- / -	- / 10.895
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 10.895</b>	<b>- / -</b>	<b>- / 10.895</b>

\*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:**

This program is a new start.

**KS-75 LOTB**

The Air Force is developing a common cryptographic device, and supporting equipment, used in multiple subsystems and/or networks throughout the GBSD weapons system to reduce risk and enable the future GBSD Concept of Operations. The Air Force has partnered with the National Nuclear Security Administration (NNSA) via Sandia National Laboratories (SNL) as the Technical Design Agent responsible for the design, development, test, qualification, and certification of the KS-75 cryptographic device. The Air Force plans to procure COTS parts to ensure lot integrity of critical components within the KS-75, eliminate costly re-design if parts become unavailable in the future, reduce security risk of counterfeit parts entering the design while also reducing future production risk and increasing performance and reliability.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 01 / 4	<b>P-1 Line Item Number / Title:</b> MGBSD0 / Ground Based Strategic Deterrent	<b>Item Number / Title [DODIC]:</b> Ground Based Strategic Deterrent

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	10.895	-	10.895
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	10.895	-	10.895
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>10.895</b>	-	<b>10.895</b>

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

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

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2020</b>			<b>FY 2021</b>			<b>FY 2022 Base</b>			<b>FY 2022 OCO</b>			<b>FY 2022 Total</b>		
	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Hardware - GBSD Cost																		
Non Recurring Cost																		
Ground Based Strategic Deterrent (GBSD)	-	-	-	-	-	0.000	-	-	0.000	10.895	1	10.895	-	-	-	10.895	1	10.895
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	10.895	-	-	-	-	-	10.895
<i>Subtotal: Hardware - GBSD Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	10.895	-	-	-	-	-	10.895
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	0.000	-	-	0.000	-	-	10.895	-	-	-	-	-	10.895

**Remarks:**

Overall quantity is dependent upon unit reliability data currently being collected and analyzed. Quantities will be known in 2nd Qtr FY22.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** 222000 / Replac Equip & War Consumables

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	4.500	4.495	7.681	-	7.681	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	4.500	4.495	7.681	-	7.681	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>4.500</b>	<b>4.495</b>	<b>7.681</b>	-	<b>7.681</b>	-	-	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Common Munitions BIT Reprogramming Equipment (CMBRE) Service Life Extension Program (SLEP) is a critical program replacing a legacy system fielded in the 1990s utilizing floppy drives and a DOS/Win XP operating system. The CMBRE SLEP program will mitigate the effects and risk associated with a growing list of 20+ obsolete components, outdated technology, and insufficient cybersecurity outlined in Red Team and POA&M findings in order to sustain current capabilities. CMBRE SLEP will effectively support the 20+ smart munitions and weapon systems currently fielded for the warfighter today, as well as advanced systems currently in development. CMBRE SLEP is needed to verify weapons built-in test status, reprogram operational flight data, and up/download mission and GPS data.

**Cruise Missile Automatic Test System (CM-ATS)**

The CM-ATS is a nuclear certified tester designed to test the AGM-86 Cruise Missile fleet, the B-2 RLA, and associated Carrier Aircraft Equipment (CAE) used to launch missiles.

Funding for this exhibit is contained in PE 0701212F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** 222000 / Replac Equip & War Consumables

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

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Replac Equip & War Consumables				- / -	- / 4.500	- / 4.495	- / 7.681	- / -	- / 7.681
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / 4.500	- / 4.495	- / 7.681	- / -	- / 7.681

\*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. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

**Justification:**  
 3020 funds are required for the Common Munitions BIT Reprogramming Equipment (CMBRE) Service Life Extension Program (SLEP) and the Cruise Missile Automatic Test System (CM-ATS).  
 Funds are required in order to upgrade the CMBRE and CM-ATS system. CMBRE is comprised of three major components that must be replaced: Digital Computer System Assembly (DCSA), Test Adapter Unit (TAU), and ADU. There will be no test capability for smart munitions and Bomber Rack Unit, BRU-61, for fighter aircraft if upgrades are not complete.  
 CMBRE Tester is used to initiate built-in test (BIT), reprogram the Operational Flight Programs (OFPs) for MIL-STD-1760/Non-1760 smart bombs and missiles, upload mission planning, and upload/download Global Positioning System (GPS) crypto keys.  
 CMBRE SLEP breaks vendor lock, allowing the Government to own full data rights and the technical data package (TDP). It also addresses obsolescence and cyber security issues.  
 The CM-ATS is a nuclear certified tester designed to test the AGM-86 Cruise Missile fleet, the B-2 Rotary Launcher Assembly (RLA), and associated Carrier Aircraft Equipment (CAE) used to launch missiles.

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** 222000 / Replac Equip & War Consumables **Aggregated Items Title:** Replac Equip & War Consumables

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>COMMON MUNITIONS BIT REPROGRAMMING EQUIPMENT SERVICE LIFE EXTENSION PROGRAM</b>																				
DCSA PRODUCTION UNITS	A		-	-	-	0.200	15	3.000	0.200	15	3.000	-	-	0.181	-	-	-	-	-	0.181
Munition Application Program (MAPs)	A		-	-	-	-	-	1.500	-	-	1.495	1.500	5	7.500	-	-	-	1.500	5	7.500
<b>Subtotal: COMMON MUNITIONS BIT REPROGRAMMING EQUIPMENT SERVICE LIFE EXTENSION PROGRAM</b>			-	-	-	-	-	<b>4.500</b>	-	-	<b>4.495</b>	-	-	<b>7.681</b>	-	-	-	-	-	<b>7.681</b>
<b>Total</b>			-	-	-	-	-	<b>4.500</b>	-	-	<b>4.495</b>	-	-	<b>7.681</b>	-	-	-	-	-	<b>7.681</b>

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

**Remarks:**

FY20 funding was obligated for the Munition Application Program (MAP) for Wind Corrected Munition Dispenser (WCMD) as well as the procurement of 30 SLEP Digital Computer System Assemblies (DCSAs) and MAP support kits. FY21 funds was obligated for building 14 CMBRE SLEP Test Adapter Units (TAUs) and will be obligated for MAPs for JASSM-A, JASSM-ER and JASSM B-2 and the Miniature Air Launched Dispenser (MALD). FY22 will be obligated for MAPs for AMRAAM, SDB-I, BRU-61, JDAM and ALE-50, as well as starting CMBRE SLEP technical order development and necessary costs associated with the CMBRE and Cruise Missile ATS Programs.

Common Munitions BIT Reprogramming Equipment (CMBRE) Service Life Extension Program (SLEP) is used to initiate BIT and reprogram MIL-STD-1760/Non-1760 smart bombs and missiles.

Provides BIT status, upload/download and verification of applicable software including:

Operational Flight Programs (OFPs), mission planning and/or Global Positioning System (GPS) crypto keys, preflight of smart munitions.

The Cruise Missile - Automatic Test System is a nuclear certified tester designed to test the AGM-86 Cruise Missile fleet, the B-2 RLA, and associated Carrier Aircraft Equipment (CAE) used to launch missiles.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** ARRW00 / AGM-183A Air-Launched Rapid Response Weapon

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0101101F **Other Related Program Elements:** N/A

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	160.850	-	160.850	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	160.850	-	160.850	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>160.850</b>	-	<b>160.850</b>	-	-	-	-	-	-

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

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

**Description:**

Air-Launched Rapid Response Weapon (ARRW) is a Middle Tier Acquisition (MTA) rapid prototyping effort (RDT&E) in PE 0604033F, BPAC 643882. ARRW provides a hypersonic, long range, conventional air-to-surface, precision guided prompt strike capability from stand-off ranges. ARRW will provide a lethal capability against high-value, time-sensitive targets in anti-access/area-denied environments. Initial fielding and operational use of ARRW will be on the B-52 aircraft and have a 15 year shelf life. The RDT&E effort will design, develop, manufacture, and test a number of production-ready prototype missiles. In FY2021, ARRW will conduct booster test flights and begin manufacture of All-Up Round (AUR) test missiles. In FY 2022, ARRW will complete manufacture and flight test of AUR test missiles and transition to an early operational capability. This procurement activity begins production and rapid fielding for ARRW.

ARRW procurement funding supports the entire weapon system to include resolution of obsolescence, end-of-life buys, bridge buys, supplier/parts replacement, to include electronic components used commercially and in short supply, and qualification activities to preserve and increase future production capabilities and capacity. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 Buy-To-Budget Acquisition.

Funding for this exhibit contained in PE 0101101F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** ARRW00 / AGM-183A Air-Launched Rapid Response Weapon

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0101101F **Other Related Program Elements:** N/A

**Line Item MDAP/MAIS Code:** N/A

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 <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-5	AGM-183A Air-Launched Rapid Response Weapon	P-5a, P-21	B		- / -	- / 0.000	- / 0.000	- / 160.850	- / -	- / 160.850
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / 0.000	- / 0.000	- / 160.850	- / -	- / 160.850

\*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:**

This program is a new start.

ARRW is a Middle Tier Acquisition rapid prototyping effort.

FY22 funds will be used to procure AGM-183A ARRW missiles and associated support equipment.

FY22 funding procures an estimated 12 missiles for initial fielding of a hypersonic weapon capability.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> ARRW00 / AGM-183A Air-Launched Rapid Response Weapon	<b>Item Number / Title [DODIC]:</b> AGM-183A Air-Launched Rapid Response Weapon

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	160.850	-	160.850
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	160.850	-	160.850
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>160.850</b>	-	<b>160.850</b>

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

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

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2020</b>			<b>FY 2021</b>			<b>FY 2022 Base</b>			<b>FY 2022 OCO</b>			<b>FY 2022 Total</b>		
	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ M)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware - Air-launched Rapid Response Weapon (ARRW) Cost</b>																		
Recurring Cost																		
AGM-183A All Up Rounds <sup>(t)</sup>	-	-	-	-	-	0.000	-	-	0.000	11.202	12	134.420	-	-	-	11.202	12	134.420
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	134.420	-	-	-	-	-	134.420
<i>Subtotal: Hardware - Air-launched Rapid Response Weapon (ARRW) Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	134.420	-	-	-	-	-	134.420
<b>Support - Air-launched Rapid Response Weapon (ARRW) Cost</b>																		
USG Support	-	-	-	-	-	-	-	-	-	-	-	21.850	-	-	-	-	-	21.850
USG Program Management Administration (PMA)	-	-	-	-	-	-	-	-	-	-	-	4.580	-	-	-	-	-	4.580
<i>Subtotal: Support - Air-launched Rapid Response Weapon (ARRW) Cost</i>	-	-	-	-	-	-	-	-	-	-	-	26.430	-	-	-	-	-	26.430
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	0.000	-	-	0.000	-	-	160.850	-	-	-	-	-	160.850

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

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2022 Air Force								<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2			<b>P-1 Line Item Number / Title:</b> ARRW00 / AGM-183A Air-Launched Rapid Response Weapon					<b>Item Number / Title [DODIC]:</b> AGM-183A Air-Launched Rapid Response Weapon				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ M)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
AGM-183A All Up Rounds <sup>(†)</sup>		2022	Lockheed Martin / Orlando FL	TBD	AFLCMC/EB - Weapons	Jan 2022	Jul 2023	12	11.202	N	Dec 2021	Dec 2020

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



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force															<b>Date:</b> May 2021														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2										<b>P-1 Line Item Number / Title:</b> ARRW00 / AGM-183A Air-Launched Rapid Response Weapon										<b>Item Number / Title [DODIC]:</b> AGM-183A Air-Launched Rapid Response Weapon									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022													Fiscal Year 2023													BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

AGM-183A All Up Rounds																																			
1	2022	AF		12	0	12				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	9




**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2		<b>P-1 Line Item Number / Title:</b> ARRW00 / AGM-183A Air-Launched Rapid Response Weapon
		<b>Item Number / Title [DODIC]:</b> AGM-183A Air-Launched Rapid Response Weapon

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Orlando FL	12	12	24	10	4	18	22	0	0	0	0

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

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

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** JAGM00 / Joint Air-To-Ground Munition

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

**Line Item MDAP/MAIS Code:** N/A

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	40	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	10.000	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	10.000	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>10.000</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	0.214	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	0.250	-	-	-	-	-	-	-	-	-	-

**Description:**

The Joint Air-to-Ground Missile (JAGM) is a multi-sensor air-to-ground missile that will increase lethality for the Joint Force Commander against time sensitive targets in challenging environments. JAGM entered production in FY2018, leveraging the HELLFIRE system. AF will augment the HELLFIRE inventory with JAGMs to improve the lethality of the MQ-9 Reaper.

The Army is the Lead Service for the JAGM program with Air Force missiles being procured through the Army's Redstone Arsenal. JAGM is the next generation of aviation-launched, fire and forget missiles to augment HELLFIRE capability. The JAGM multi-mode guidance section is integrated with the combat-proven HELLFIRE II (AGM-114R) propulsion, warhead, and control section. JAGM will provide precision-kill capability and be used by joint service aircraft for destruction of high value stationary, moving, and relocatable land and maritime targets from standoff range in day, night, adverse weather, and obscured operational environments. JAGMs will be used by the MQ-9 Reaper aircraft.

JAGM procurement funding supports the entire JAGM system to include resolution of obsolescence, end-of-life buys, safety, insensitive munitions, reliability, weapon integration activities, test sets, engineering changes, modifications, and production issues. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Unit cost may vary based on procurement quantities of Lead Service, other Services and/or Foreign Military Sales (FMS) from the HELLFIRE and JAGM production capacity. Starting in FY2020, JAGM and HELLFIRE missiles will be procured using the same annual production contract.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.

Funding for this exhibit is contained in PE 0201109F.

**Justification:**

No FY2022 funding requested.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: PB 2022 Air Force** **Date: May 2021**

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** JASSM0 / Joint Air-Surface Standoff Missile

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

**Line Item MDAP/MAIS Code:** 555

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 ( <i>Units in Each</i> )	3,654	390	376	525	-	525	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	4,135.411	482.507	500.009	710.550	-	710.550	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	4,135.411	482.507	500.009	710.550	-	710.550	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>4,135.411</b>	<b>482.507</b>	<b>500.009</b>	<b>710.550</b>	<b>-</b>	<b>710.550</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	0.434	0.440	0.442	-	0.442	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	1.132	1.237	1.330	1.353	-	1.353	-	-	-	-	-	-

**Description:**

FY2020 funding totals include \$20.9M appropriated for Overseas Contingency Operations (OCO). These funds procure 19 missiles.  
 FY2021 funding totals include \$30.0M appropriated for OCO. These funds procure 24 missiles.  
 FY2022 funding totals include \$8.0M requested for Direct War costs. These funds procure 8 missiles.

The Joint Air-to-Surface Standoff Missile (JASSM) is an ACAT 1C program. This program provides a long range, conventional air-to-surface, autonomous, precision guided, standoff cruise missile compatible with fighter and bomber aircraft able to attack a variety of fixed or relocatable targets. The JASSM family of missiles includes: JASSM Baseline (JASSM-BL/AGM-158A) and JASSM Extended Range (JASSM-ER/AGM-158B, JASSM-ER/AGM-158B-2, and JASSM-ER/AGM-158D). The AGM-158B-2 is the variant that resulted after the wing de-scope. AGM-158D provides a weapon datalink (WDL) capability to the JASSM AGM158B-2 variant to re-target the missile, post-launch, against time sensitive targets during mission execution. Efforts also include, but are not limited to, continued integration of alternative communication methods, architecture, and waveforms to advance missile capabilities against critical emerging targets. It does not incorporate wing upgrades.

Aircraft integration for JASSM-BL is complete on the B-52H, F-16 (Block 40-52), B-1, B-2, and F-15E. Aircraft integration for JASSM-ER/AGM-158B is complete on the B-1, F-15E, F-16, and B-52. Threshold aircraft is the B-1 and the objective aircraft for JASSM-ER/AGM-158B are the B-52, F-16, B-2, F-15E, and F-35. JASSM-ER/AGM-158B-2 is scheduled to start low rate initial production in the FY2021 procurement. JASSM-ER/AGM-158D will start low rate initial production in FY2022. Threshold aircraft for JASSM-ER/AGM-158D is the B-1 and the objective aircraft for JASSM-ER/AGM-158D are the B-52, F-16, B-2, F-15E, and F-35. JASSM Lots 1 - 10 are covered under an Original Equipment Manufacture (OEM) warranty. Lots 11 and beyond are covered under a Contractor Logistics Support (CLS) contract, and missile initial/replenishment spares program funds are required to fill the spare parts pipeline under this program. Procurement quantities are estimates only and fall within a range of quantities based on negotiations for each specific lot contract.

Funding and quantity information prior to FY2017 is identified in P-1 line item 654515.

FY2022 funds the 20th production lot for the JASSM program. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. The program also plans to use funds to address obsolescence issues and reliability improvement, including flight testing, through studies, bridge buys, life of type buys, supplier/parts replacement, to include electronic components used commercially and in short supply, and qualification activities to preserve future production capabilities and capacity.

Funding for this exhibit is contained in PE 0207325F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** JASSM0 / Joint Air-Surface Standoff Missile

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

**Line Item MDAP/MAIS Code:** 555

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	JASSM0 JASSM Baseline		A		2,034 / 1,836.328	- / -	- / -	- / -	- / -	- / -
P-5	Joint Air-Surface Standoff Missile	P-5a, P-21	A		1,620 / 2,299.083	390 / 482.507	376 / 500.009	525 / 710.550	- / -	525 / 710.550
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>3,654 / 4,135.411</b>	<b>390 / 482.507</b>	<b>376 / 500.009</b>	<b>525 / 710.550</b>	<b>- / -</b>	<b>525 / 710.550</b>

\*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:**  
 FY2022 funding totals include \$702.550M in base to procure 517 missiles and \$8.000M in Direct War costs to procure 8 missiles.

Correct FY2021 quantity total is 400 (376 Base and 24 OCO). Funding totals are correct.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> JASSM0 JASSM Baseline

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	2,034	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,836.328	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,836.328	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,836.328</b>	-	-	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.903	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway - Flyaway End Item Cost																		
Recurring Cost																		
JASSM BL AGM-158A	0.698	2,034	1,420.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1,420.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	<b>1,420.038</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Support End Item Cost																		
Program Management Administration (PMA)-A&AS	-	-	9.526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Program Management Administration (PMA)-Gov't Cost	-	-	24.178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Test Support/Reliability/Obsolescence	-	-	253.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prime Contractor Support	-	-	99.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JPO Tech Supt	-	-	29.589	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	<b>416.290</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	<b>0.903</b>	<b>2,034</b>	<b>1,836.328</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>											<b>Date: May 2021</b>							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2				<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile							<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A						<b>MDAP/MAIS Code:</b>												
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2020</b>			<b>FY 2021</b>			<b>FY 2022 Base</b>			<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
Procurement Quantity (Units in Each)				1,620		390			376			525			-		525	
Gross/Weapon System Cost (\$ in Millions)				2,299.083		482.507			500.009			710.550			-		710.550	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Net Procurement (P-1) (\$ in Millions)				2,299.083		482.507			500.009			710.550			-		710.550	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
<b>Total Obligation Authority (\$ in Millions)</b>				<b>2,299.083</b>		<b>482.507</b>			<b>500.009</b>			<b>710.550</b>			<b>-</b>		<b>710.550</b>	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		0.434			0.440			0.442			-		0.442	
Gross/Weapon System Unit Cost (\$ in Millions)				1.419		1.237			1.330			1.353			-		1.353	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway - Flyaway End Item Cost</b>																		
Recurring Cost																		
AGM-158B <sup>(1)</sup>	1.162	1,620	1,882.383	1.010	390	393.900	0.995	360	358.200	1.000	280	280.000	-	-	-	1.000	280	280.000
Engineering Change Orders/Tooling	-	-	8.102	-	-	20.179	-	-	16.709	-	-	16.731	-	-	-	-	-	16.731
AGM-158B-2 <sup>(1)</sup>	-	-	-	-	-	-	1.216	40	48.634	1.116	210	234.417	-	-	-	1.116	210	234.417
AGM-158D <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	1.544	35	54.040	-	-	-	1.544	35	54.040
<i>Subtotal: Recurring Cost</i>	-	-	<i>1,890.485</i>	-	-	<i>414.079</i>	-	-	<i>423.543</i>	-	-	<i>585.188</i>	-	-	-	-	-	<i>585.188</i>
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	<i>1,890.485</i>	-	-	<i>414.079</i>	-	-	<i>423.543</i>	-	-	<i>585.188</i>	-	-	-	-	-	<i>585.188</i>
<b>Support - Support End Item Cost</b>																		
Program Management Administration (PMA)-A&AS	-	-	11.086	-	-	6.979	-	-	4.345	-	-	4.461	-	-	-	-	-	4.461
Program Management Administration (PMA)-Gov't Cost	-	-	5.528	-	-	0.845	-	-	1.032	-	-	1.586	-	-	-	-	-	1.586
Test Support/Reliability/Obsolescence	-	-	222.006	-	-	45.625	-	-	51.305	-	-	78.242	-	-	-	-	-	78.242
Prime Contractor Support	-	-	29.868	-	-	14.432	-	-	-	-	-	11.750	-	-	-	-	-	11.750
Facilitization	-	-	140.110	-	-	0.547	-	-	-	-	-	29.323	-	-	-	-	-	29.323
New Factory Ramp-up	-	-	-	-	-	-	-	-	19.784	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	<i>408.598</i>	-	-	<i>68.428</i>	-	-	<i>76.466</i>	-	-	<i>125.362</i>	-	-	-	-	-	<i>125.362</i>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2022 Air Force												<b>Date:</b> May 2021					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2						<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile						<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	1.419	1,620	2,299.083	1.237	390	482.507	1.330	376	500.009	1.353	525	710.550	-	-	-	1.353	525	710.550

**Remarks:**

FY22 facilitization funding procures specialized equipment required to support production of missile capabilities.

FY22 prime contractor funding supports engineering practices to increase the producibility, capability, affordability and improve engineering and manufacturing processes of existing and future units when applicable.

Correct FY2021 quantity total is 400 (376 Base and 24 OCO). Funding totals are correct as written.

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

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AGM-158B <sup>(†)</sup>		2018	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Oct 2018	Oct 2020	360	1.063	Y		Jul 2017
AGM-158B <sup>(†)</sup>		2019	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Oct 2021	360	1.109	Y		Jul 2018
AGM-158B <sup>(†)</sup>		2020	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Oct 2022	390	1.010	Y		Jul 2019
AGM-158B <sup>(†)</sup>		2021	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Feb 2021	Oct 2023	360	0.995	Y		Mar 2020
AGM-158B <sup>(†)</sup>		2022	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2022	Oct 2024	280	1.000	Y		Apr 2021
AGM-158B-2 <sup>(†)</sup>		2021	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Feb 2021	Feb 2024	40	1.216	Y		Mar 2020
AGM-158B-2 <sup>(†)</sup>		2022	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2022	Feb 2025	210	1.116	Y		Apr 2021
AGM-158D <sup>(†)</sup>		2022	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2022	Feb 2025	35	1.544	Y		Jul 2021

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

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019														Fiscal Year 2020														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
AGM-158B																																			
Prior Years Deliveries: 900																																			
	1	2018	AF	360	0	360	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360							
	1	2019	AF	360	0	360																						360							
	1	2019	FMS (‡)	40	0	40																						40							
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>400</b>	<b>0</b>	<b>400</b>																					<b>400</b>								
	1	2020	AF	390	0	390																						390							
	1	2021	AF	360	0	360																						360							
	1	2022	AF	280	0	280																						280							
AGM-158B-2																																			
	2	2021	AF	40	0	40																						40							
	2	2022	AF	210	0	210																						210							
	2	2022	NAVY (‡)	25	0	25																						25							
	<b>2</b>	<b>2022</b>	<b>Total</b>	<b>235</b>	<b>0</b>	<b>235</b>																						<b>235</b>							
AGM-158D																																			
	3	2022	AF	35	0	35																						35							
							O C T	N O V	D E C	J A N	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					

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021														Fiscal Year 2022														BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

AGM-158B																													
Prior Years Deliveries: 900																													
1	2018	AF		360	0	360	30	30	30	30	30	30	30	30	30	30	30												0
1	2019	AF		360	0	360	-	-	-	-	-	-	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	0
1	2019	FMS (‡)		40	0	40	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	-	-	-	-	-	-	-	0
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>400</b>	<b>0</b>	<b>400</b>	-	-	-	-	-	-	-	-	-	-	-	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>0</b>
1	2020	AF		390	0	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	
1	2021	AF		360	0	360																						360	
1	2022	AF		280	0	280																						280	

AGM-158B-2																												
2	2021	AF		40	0	40																						40
2	2022	AF		210	0	210																						210
2	2022	NAVY (‡)		25	0	25																						25
<b>2</b>	<b>2022</b>	<b>Total</b>		<b>235</b>	<b>0</b>	<b>235</b>																						<b>235</b>

AGM-158D																														
3	2022	AF		35	0	35																						35		
							O C T	N O V	D E C	J A N	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

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023														Fiscal Year 2024														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023														Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
AGM-158B																																			
Prior Years Deliveries: 900																																			
	1	2018	AF	360	360	0																											0		
	1	2019	AF	360	360	0																											0		
	1	2019	FMS (‡)	40	40	0																											0		
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>400</b>	<b>400</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
	1	2020	AF	390	0	390	33	33	33	33	33	33	33	33	31	31	31																0		
	1	2021	AF	360	0	360	-	-	-	-	-	-	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	0			
	1	2022	AF	280	0	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280			
AGM-158B-2																																			
	2	2021	AF	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	6	6	6	7	7	7	7	0				
	2	2022	AF	210	0	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210			
	2	2022	NAVY (‡)	25	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25			
	<b>2</b>	<b>2022</b>	<b>Total</b>	<b>235</b>	<b>0</b>	<b>235</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>235</b>				
AGM-158D																																			
	3	2022	AF	35	0	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35				
							O C T	N O V	D E C	J A N	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					

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

Cost Elements (Units in Each)						Fiscal Year 2025													Fiscal Year 2026													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025													Calendar Year 2026													
							O C T	N O V	D E C	J A N	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			
AGM-158B																																	
Prior Years Deliveries: 900																																	
	1	2018	AF	360	360	0																											0
	1	2019	AF	360	360	0																											0
	1	2019	FMS (‡)	40	40	0																											0
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>400</b>	<b>400</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
	1	2020	AF	390	390	0																											0
	1	2021	AF	360	360	0																											0
	1	2022	AF	280	0	280	24	25	25	25	25	25	25	25	22	21	19	19															0
AGM-158B-2																																	
	2	2021	AF	40	40	0																											0
	2	2022	AF	210	0	210	-	-	-	-	17	27	27	27	28	28	28	28															0
	2	2022	NAVY (‡)	25	0	25	-	-	-	-	3	3	3	4	3	3	3	3															0
	<b>2</b>	<b>2022</b>	<b>Total</b>	<b>235</b>	<b>0</b>	<b>235</b>	-	-	-	-	<b>20</b>	<b>30</b>	<b>30</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
AGM-158D																																	
	3	2022	AF	35	0	35	-	-	-	-	1	-	-	5	5	8	8	8															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			



**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> JASSM0 / Joint Air-Surface Standoff Missile	<b>Item Number / Title [DODIC]:</b> Joint Air-Surface Standoff Missile
---	---	---

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Lockheed Martin - Troy, Alabama	248	307	340	1	0	0	0	0	0	6	31	37
2	Lockheed Martin - Troy, Alabama	40	210	235	0	0	0	0	0	0	6	35	41
3	Lockheed Martin - Troy, Alabama	1	1	35	1	6	35	41	0	0	0	0	0

**Remarks:**  
 FY2021/Lot 19 contract award of 400 missiles will contain an option upon successful completion of procurement decision, an engineering change order (ECO) will be issued for 40 AGM-158B-2 missiles, netting 360 AGM-158Bs and 40 AGM-158B-2s upon contract execution. ECO projected to issue in July 2022.  
 AGM-158B-2 procurement deliveries start February 2024 and are phased to allow for new production facility transition.  
 FY2022/Lot 20 contract award of 525 missiles will contain an option upon successful completion of procurement decision, an engineering change order (ECO) will be issued for 35 AGM-158D missiles, netting 280 AGM-158Bs (including 8 OCO missiles), 210 AGM-158B-2s, and 35 AGM-158Ds upon contract execution. ECO projected to issue in September 2022.  
 Since FY2022 is the initial AGM-158D build, production rates are dependent on capability development. Therefore, actual Minimum Sustainment Rate (MSR) is 0, which is an invalid value for IDECS data validation.  
 MSR for AGM-158B includes US Air Force and US Navy procurement.  
 P-21 delivery schedule reflects the correct total quantities in FY2021 (400 missiles).  
 (‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** LRASM0 / LRASM0

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207325F **Other Related Program Elements:** N/A

**Line Item MDAP/MAIS Code:** 449

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 ( <i>Units in Each</i> )	50	-	5	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	187.524	0.000	19.800	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	187.524	0.000	19.800	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>187.524</b>	<b>0.000</b>	<b>19.800</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	3.750	-	3.960	-	-	-	-	-	-	-	-	-

**Description:**

The Long Range Anti-Ship Missile (LRASM) is a near-term solution for the Offensive Anti-Surface Warfare (OASuW) air-launch capability gap that provides flexible, long-range, advanced, anti-surface capability against high-threat maritime targets. The Navy is the lead service for the LRASM program.

The missile was developed based on the Joint Air-to-Surface Standoff Missile-Extended Range (JASSM-ER). LRASM achieved Early Operational Capability (EOC) in December 2018 on the U.S. Air Force B-1 Lancer and EOC on the U.S. Navy F/A-18E/F Super Hornet in November 2019.

The program transitions the Defense Advanced Research Projects Agency (DARPA)/Office of Naval Research (ONR) LRASM demonstration design into a fielded weapon system which supports an increased offensive strike capability. Funds may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The program also plans to use funds to address obsolescence issues through studies, bridge buys, life of type buys, supplier/parts replacement, to include electronic components used commercially and in short supply, and qualification and reliability activities to preserve future production capabilities and capacities.

Funding for this exhibit is contained in PE 0207325F.

Additional funding for this exhibit is also contained in Navy PE 0604786N Offensive Anti-Surface Warfare Weapon Dev.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** LRASM0 / LRASM0

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207325F **Other Related Program Elements:** N/A

**Line Item MDAP/MAIS Code:** 449

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	LRASM0	P-5a, P-21	B		50 / 187.524	- / 0.000	5 / 19.800	- / 0.000	- / -	- / 0.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>50 / 187.524</b>	<b>- / 0.000</b>	<b>5 / 19.800</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>

\*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:**  
 No FY2022 funding requested due to a supply chain obsolescence limitation. Limitation is already mitigated for future procurement.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> LRASM0 / LRASM0	<b>Item Number / Title [DODIC]:</b> LRASM0

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	50	-	5	-	-	-
Gross/Weapon System Cost (\$ in Millions)	187.524	0.000	19.800	0.000	-	0.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	187.524	0.000	19.800	0.000	-	0.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>187.524</b>	<b>0.000</b>	<b>19.800</b>	<b>0.000</b>	<b>-</b>	<b>0.000</b>

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

Initial Spares (\$ in Millions)	0.000	0.000	0.000	0.000	-	0.000
Gross/Weapon System Unit Cost (\$ in Millions)	3.750	-	3.960	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Hardware - LRASM Cost</b>																		
Recurring Cost																		
LRASM All-Up-Round <sup>(f)</sup>	3.566	50	178.294	-	-	0.000	3.510	5	17.551	-	-	0.000	-	-	-	-	-	0.000
Contingent Liability	-	-	6.561	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>184.855</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>17.551</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.000</i>
<i>Subtotal: Hardware - LRASM Cost</i>	<i>-</i>	<i>-</i>	<i>184.855</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>17.551</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.000</i>
<b>Support - LRASM Cost</b>																		
Program Management Administration (PMA)-A&AS	-	-	0.280	-	-	0.000	-	-	0.500	-	-	0.000	-	-	-	-	-	0.000
Program Management Administration (PMA)-Gov't Cost	-	-	0.089	-	-	0.000	-	-	0.150	-	-	0.000	-	-	-	-	-	0.000
Tooling	-	-	2.300	-	-	-	-	-	1.599	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - LRASM Cost</i>	<i>-</i>	<i>-</i>	<i>2.669</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>2.249</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.000</i>
<b>Gross/Weapon System Cost</b>	<b>3.750</b>	<b>50</b>	<b>187.524</b>	<b>-</b>	<b>-</b>	<b>0.000</b>	<b>3.960</b>	<b>5</b>	<b>19.800</b>	<b>-</b>	<b>-</b>	<b>0.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.000</b>

**Remarks:**

The LRASM contract is FPIF, with a target price and a total contract price. The funding is obligated to the target price but the difference between the target price and the total contract price is required to be held as a Contingent Liability (CL). The final determination for award of a CL will not be made until after the final item is delivered and actual costs are established.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> LRASM0 / LRASM0	<b>Item Number / Title [DODIC]:</b> LRASM0
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>	
<sup>(†)</sup> indicates the presence of a P-5a		

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> LRASM0 / LRASM0	<b>Item Number / Title [DODIC]:</b> LRASM0
---	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LRASM All-Up-Round <sup>(†)</sup>		2018	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Nov 2018	May 2021	16	3.443	N	Jan 2017	Jan 2017
LRASM All-Up-Round <sup>(†)</sup>		2019	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Mar 2020	May 2022	15	3.443	N	Jan 2019	Jan 2019
LRASM All-Up-Round <sup>(†)</sup>		2021	Lockheed Martin / Troy, AL	SS / FFP	Eglin AFB	Feb 2021	Oct 2022	5	3.510	N	Jan 2020	Feb 2020

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

**Remarks:**

Lot 5/FY2021 is the first year of Air Force procurement for the LRASM v1.1 configuration.

Lot 5 (FY2021) is changed to FFP.

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> LRASM0 / LRASM0	<b>Item Number / Title [DODIC]:</b> LRASM0
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019													Fiscal Year 2020													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LRASM All-Up-Round																																	
Prior Years Deliveries: 19																																	
1	2018	AF		16	0	16		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16				
1	2018	NAVY <sup>(‡)</sup>		34	0	34		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34				
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>50</b>	<b>0</b>	<b>50</b>		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>50</b>				
1	2019	AF		15	0	15																							15				
1	2019	NAVY <sup>(‡)</sup>		33	0	33																							33				
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>48</b>	<b>0</b>	<b>48</b>																							<b>48</b>				
1	2021	AF		5	0	5																							5				
1	2021	FMS <sup>(‡)</sup>		69	0	69																							69				
1	2021	NAVY <sup>(‡)</sup>		48	0	48																							48				
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>122</b>	<b>0</b>	<b>122</b>																							<b>122</b>				
								O C T	N O V	D E C	J A N	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		



**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** LRASM0 / LRASM0 **Item Number / Title [DODIC]:** LRASM0

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LRASM All-Up-Round																																	
Prior Years Deliveries: 19																																	
1	2018	AF		16	0	16	-	-	-	-	-	-	-	2	2	4	4	4															0
1	2018	NAVY <sup>(‡)</sup>		34	0	34	4	4	4	4	4	4	4	3	3	-	-	-														0	
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>50</b>	<b>0</b>	<b>50</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>													<b>0</b>		
1	2019	AF		15	0	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	4	4	4		0		
1	2019	NAVY <sup>(‡)</sup>		33	0	33	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	3	3	3	-	-	-		0		
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>48</b>	<b>0</b>	<b>48</b>	-	-	-	-	-	-	-	-	-	-	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>		<b>0</b>			
1	2021	AF		5	0	5																									5		
1	2021	FMS <sup>(‡)</sup>		69	0	69																									69		
1	2021	NAVY <sup>(‡)</sup>		48	0	48																									48		
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>122</b>	<b>0</b>	<b>122</b>																									<b>122</b>		
							O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** LRASM0 / LRASM0 **Item Number / Title [DODIC]:** LRASM0

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LRASM All-Up-Round																																	
Prior Years Deliveries: 19																																	
1	2018	AF		16	16	0																										0	
1	2018	NAVY <sup>(‡)</sup>		34	34	0																										0	
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>50</b>	<b>50</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
1	2019	AF		15	15	0																										0	
1	2019	NAVY <sup>(‡)</sup>		33	33	0																										0	
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>48</b>	<b>48</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
1	2021	AF		5	0	5	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2021	FMS <sup>(‡)</sup>		69	0	69	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	5	4	0		
1	2021	NAVY <sup>(‡)</sup>		48	0	48	3	4	4	4	4	4	4	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>122</b>	<b>0</b>	<b>122</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>0</b>			
							O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force									<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2					<b>P-1 Line Item Number / Title:</b> LRASMO / LRASMO					<b>Item Number / Title [DODIC]:</b> LRASMO			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Lockheed Martin - Troy, AL	12	72	72	1	5	20	25	0	0	0	0	

**Remarks:**  
Minimum Sustainment Rate (MSR) includes US Air Force and US Navy.

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

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

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

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X)

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207161F

**Line Item MDAP/MAIS Code:** 442

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 ( <i>Units in Each</i> )	2,378	444	331	243	-	243	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,037.648	155.289	164.769	107.587	-	107.587	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,037.648	155.289	164.769	107.587	-	107.587	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,037.648</b>	<b>155.289</b>	<b>164.769</b>	<b>107.587</b>	<b>-</b>	<b>107.587</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	23.431	0.234	1.861	2.659	-	2.659	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	0.395	0.418	0.472	0.398	-	0.398	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	0.436	0.350	0.498	0.443	-	0.443	-	-	-	-	-	-

**Description:**

The AIM-9X Block II/II+ Sidewinder (AIM-9X Bk II/II+) continues the evolution of the AIM-9 series of missiles. This missile program delivers a launch and leave, air combat munition that uses passive Infrared (IR) energy to acquire and track enemy air targets and complements the radar guided Advanced Medium Range Air-to-Air Missile (AMRAAM). The missile provides first shot, first kill opportunities while conducting air combat maneuvering Within Visual Range (WVR) which is essential for aircrew survival. The AIM-9X provides these opportunities with unmatched offensive and defensive capabilities against threats WVR, even when IR countermeasures are employed.

The AIM-9X also provides air superiority in the Beyond Visual Range (BVR) air-to-air battle. Anti-tamper features have been incorporated to protect improvements inherent in this design. The AIM-9X Block II missile is critical for projecting power and winning decisively against threats identified in Defense Planning Guidance and the Air Force Strategic Master Plan.

AIM-9X is a Post Milestone C, Acquisition Category IC (ACAT-IC) joint service program led by the Department of the Navy. In June 2011, the Milestone Decision Authority (MDA) established the AIM-9X Block II missile program which was approved for entry at Milestone C for Low Rate Initial Production (LRIP). The Block I program ended with the Sec 2366 A/B certification and Acquisition Program Baseline for AIM-9X Block II approval on December 23, 2011. In August 2015, the program received approval for Full Rate Production (FRP), and the Acquisition Program Baseline was re-established.

In December 2017, the program began to procure a third variant of the missile labeled the AIM-9X Block II PLUS (Block II+) to satisfy the requirements of the Joint Strike Fighter platform. This version of the missile is being produced on the same production line as the AIM-9X Block II missile. For contracting purposes, the nomenclature of the AIM-9X Block II missile is identified as AIM-9X-2 and the AIM-9X Block II+ missile is identified as AIM-9X-3.

In February 2019, the Acquisition Program Baseline for Navy and USAF was revised to increase total missile procurements from 6,000 to 11,635 missiles and to extend missile procurements through 2035.

Funding for this exhibit contained in PE 0207161F.

Funding may be used to address Diminishing Manufacturing Source (DMS) issues.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X)

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207161F

**Line Item MDAP/MAIS Code:** 442

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Sidewinder (AIM-9X)	P-5a, P-21	A		2,378 / 1,037.648	444 / 155.289	331 / 164.769	243 / 107.587	- / -	243 / 107.587
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>2,378 / 1,037.648</b>	<b>444 / 155.289</b>	<b>331 / 164.769</b>	<b>243 / 107.587</b>	<b>- / -</b>	<b>243 / 107.587</b>

\*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 provides funding to procure the eighth lot of Full Rate Production (FRP) AIM-9X Block II (Blk II) missiles, as well as the sixth lot of AIM-9X Block II Plus (Blk II+) missiles for the Air Force. FY 2022 funding was realigned to RDT&E (3600) for SIP IV development to support hardware and software upgrades. The program unit costs are based on quantities procured by the Department of the Navy and US Air Force as well as Foreign Military Sales customers.

Total Program quantity by service includes a mix of All Up Round (AUR) missiles and Captive Air Training Missiles (CATM).

Funding may be used to resolve production Diminishing Manufacturing Sources/Material Shortages/Obsolescence issues through studies, bridge buys, life of type buys, supplier/parts replacement and qualification activities to preserve future production capabilities and capacities.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S Code Section 2308 BUY-TO-BUDGET ACQUISITION.

**UNCLASSIFIED**

**Exhibit P-5, Cost Analysis: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)	<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)
---	--	--

**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)	2,378	444	331	243	-	243
Gross/Weapon System Cost (\$ in Millions)	1,037.648	155.289	164.769	107.587	-	107.587
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,037.648	155.289	164.769	107.587	-	107.587
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,037.648</b>	<b>155.289</b>	<b>164.769</b>	<b>107.587</b>	<b>-</b>	<b>107.587</b>

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

Initial Spares (\$ in Millions)	23.431	0.234	1.861	2.659	-	2.659
Gross/Weapon System Unit Cost (\$ in Millions)	0.436	0.350	0.498	0.443	-	0.443

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway - Flyaway End Item Cost																		
Recurring Cost																		
All Up Round - Block II <sup>(†)</sup>	0.394	1,665	656.399	0.371	303	112.448	0.455	225	102.305	0.401	155	62.136	-	-	-	0.401	155	62.136
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>	0.218	508	110.681	0.202	130	26.268	0.223	26	5.800	0.233	80	18.615	-	-	-	0.233	80	18.615
Engineering Change Orders - Block II	-	-	2.038	-	-	0.000	-	-	3.937	-	-	2.268	-	-	-	-	-	2.268
Diminishing Manufacturing Sources	-	-	18.032	-	-	1.895	-	-	1.362	-	-	7.891	-	-	-	-	-	7.891
Government Cost (GFE & Testing) - Block II	-	-	0.654	-	-	0.006	-	-	0.000	-	-	0.037	-	-	-	-	-	0.037
Special Test/Special Tooling Equipment - Block II	-	-	16.563	-	-	1.075	-	-	1.514	-	-	1.715	-	-	-	-	-	1.715
Missile Containers - Block II	0.013	690	8.711	0.014	92	1.270	0.013	92	1.198	0.013	68	0.862	-	-	-	0.013	68	0.862
Non-Recurring Engineering - Block II	-	-	39.771	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
All Up Round - Block II Plus <sup>(†)</sup>	0.424	205	86.944	0.494	11	5.438	0.500	80	40.032	0.458	8	3.665	-	-	-	0.458	8	3.665
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>939.793</i>	<i>-</i>	<i>-</i>	<i>148.400</i>	<i>-</i>	<i>-</i>	<i>156.148</i>	<i>-</i>	<i>-</i>	<i>97.189</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>97.189</i>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>												<b>Date:</b> May 2021					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2						<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)						<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A										<b>MDAP/MAIS Code:</b>							

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	939.793	-	-	148.400	-	-	156.148	-	-	97.189	-	-	-	-	-	97.189
<b>Support - Support End Item Cost</b>																		
Production Tech Support	-	-	27.630	-	-	2.827	-	-	2.147	-	-	4.346	-	-	-	-	-	4.346
Peculiar Support Equipment - Block II	-	-	0.249	-	-	0.006	-	-	0.044	-	-	0.040	-	-	-	-	-	0.040
Test Equipment - Block II	-	-	10.682	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PMA Contractor Services - Block II	-	-	11.496	-	-	1.132	-	-	1.510	-	-	1.410	-	-	-	-	-	1.410
PMA Other Government Costs - Block II	-	-	47.585	-	-	2.704	-	-	4.889	-	-	4.560	-	-	-	-	-	4.560
Training Support - Block II	-	-	0.213	-	-	0.220	-	-	0.031	-	-	0.042	-	-	-	-	-	0.042
<i>Subtotal: Support - Support End Item Cost</i>	-	-	97.855	-	-	6.889	-	-	8.621	-	-	10.398	-	-	-	-	-	10.398
<b>Gross/Weapon System Cost</b>	<b>0.436</b>	<b>2,378</b>	<b>1,037.648</b>	<b>0.350</b>	<b>444</b>	<b>155.289</b>	<b>0.498</b>	<b>331</b>	<b>164.769</b>	<b>0.443</b>	<b>243</b>	<b>107.587</b>	-	-	-	<b>0.443</b>	<b>243</b>	<b>107.587</b>

**Remarks:**

The program is in production and any changes that will occur, prior to or after fielding, are software changes. Hardware specs are available and being used to manufacture the missile. Baseline software specs are known.

The FY21 Lot 21 Contract is scheduled for award in June 2021 and procures the Full Rate Production (FRP) missile.

Under Buy to Budget Authority, the Air Force procured 89 additional FY20 missiles above the PB21 approved quantity of 355.

Program expected to acquire 91 additional missiles in FY21 under Buy to Budget authority (total quantity 422) due to decreased unit costs, resulting from a change in the budgeted cost of the warhead.

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



**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)	<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)
---	--	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
All Up Round - Block II <sup>(†)</sup>		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Dec 2018	Sep 2020	183	0.362	Y		Mar 2017
All Up Round - Block II <sup>(†)</sup>		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Apr 2019	Sep 2021	176	0.381	Y		Jan 2018
All Up Round - Block II <sup>(†)</sup>		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2020	Aug 2022	303	0.371	Y		Jan 2019
All Up Round - Block II <sup>(†)</sup>		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jun 2021	Aug 2023	225	0.455	Y		Jan 2020
All Up Round - Block II <sup>(†)</sup>		2022	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2022	Aug 2024	155	0.401	Y		Jan 2021
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Dec 2018	Sep 2020	64	0.196	Y		Mar 2017
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Apr 2019	Sep 2021	15	0.209	Y		Jan 2018
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2020	Aug 2022	130	0.202	Y		Jan 2019
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jun 2021	Aug 2023	26	0.223	Y		Jan 2020
Captive Air Training Missile (CATM) - Block II <sup>(†)</sup>		2022	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2022	Aug 2024	80	0.233	Y		Jan 2021
All Up Round - Block II Plus <sup>(†)</sup>		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Dec 2018	Sep 2020	75	0.416	Y		Mar 2017
All Up Round - Block II Plus <sup>(†)</sup>		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Apr 2019	Sep 2021	80	0.400	Y		Jan 2018
All Up Round - Block II Plus <sup>(†)</sup>		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2020	Aug 2022	11	0.494	Y		Jan 2019
All Up Round - Block II Plus <sup>(†)</sup>		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jun 2021	Aug 2023	80	0.500	Y		Jan 2020
All Up Round - Block II Plus <sup>(†)</sup>		2022	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2022	Aug 2024	8	0.458	Y		Jan 2021

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

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X) **Item Number / Title [DODIC]:** Sidewinder (AIM-9X)

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2019														Fiscal Year 2020														B A L A N C E			
O C C O	M F R #	F Y	S E R V I C E	P R O C Q T Y	A C C E P T P R I O R T O 1 O C T 2 0 1 8	B A L D U E A S O F 1 O C T	Calendar Year 2019														Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
All Up Round - Block II																																			
Prior Years Deliveries: 1306																																			
1	2018	AF		183	0	183			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	167					
1	2018	FMS (+)		431	0	431			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	395					
1	2018	NAVY (+)		141	0	141			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	129					
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>755</b>	<b>0</b>	<b>755</b>			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>64</b>	<b>691</b>						
1	2019	AF		176	0	176								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176					
1	2019	FMS (+)		156	0	156								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156					
1	2019	NAVY (+)		235	0	235								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	235					
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>567</b>	<b>0</b>	<b>567</b>								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>64</b>	<b>691</b>					
1	2020	AF		303	0	303																					A -	-	-	303					
1	2020	FMS (+)		167	0	167																					A -	-	-	167					
1	2020	NAVY (+)		227	0	227																					A -	-	-	227					
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>697</b>	<b>0</b>	<b>697</b>																					-	-	-	<b>697</b>					
1	2021	AF		225	0	225																								225					
1	2021	FMS (+)		38	0	38																								38					
1	2021	NAVY (+)		203	0	203																								203					
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>466</b>	<b>0</b>	<b>466</b>																							<b>466</b>						
1	2022	AF		155	0	155																								155					
1	2022	FMS (+)		100	0	100																								100					
1	2022	NAVY (+)		111	0	111																								111					
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>366</b>	<b>0</b>	<b>366</b>																							<b>366</b>						
Captive Air Training Missile (CATM) - Block II																																			
Prior Years Deliveries: 429																																			
2	2018	AF		64	0	64			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	59					
2	2018	FMS (+)		76	0	76			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	70					
2	2018	NAVY (+)		41	0	41			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	38					
<b>2</b>	<b>2018</b>	<b>Total</b>		<b>181</b>	<b>0</b>	<b>181</b>			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>14</b>	<b>167</b>					
2	2019	AF		15	0	15								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15					
2	2019	FMS (+)		75	0	75								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75					
									O C T	N O V	D E C	J A N	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			



**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)	<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)
---	--	--

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2019										Fiscal Year 2020										BALANCE					
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019										Calendar Year 2020															
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M		J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	P		A	U	U	U	E
	3	2022	NAVY (±)	8	0	8																								8		
	3	2022	<b>Total</b>	16	0	16																								16		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	P	A	U	U	U	E	
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P		

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X) **Item Number / Title [DODIC]:** Sidewinder (AIM-9X)

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2021													Fiscal Year 2022													BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P		
All Up Round - Block II																																	
Prior Years Deliveries: 1306																																	
1	2018	AF		183	16	167	16	15	15	15	15	15	15	15	15	15															0		
1	2018	FMS (+)		431	36	395	36	36	36	36	36	35	36	36	36	36															0		
1	2018	NAVY (+)		141	12	129	12	12	11	12	11	12	11	12	12	12															0		
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>755</b>	<b>64</b>	<b>691</b>	<b>64</b>	<b>63</b>	<b>62</b>	<b>63</b>	<b>62</b>	<b>62</b>	<b>62</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>64</b>	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
1	2019	AF		176	0	176	-	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16	16	16	16	16	16			0			
1	2019	FMS (+)		156	0	156	-	-	-	-	-	-	-	-	-	-	15	15	14	14	14	14	14	14	14	14	14			0			
1	2019	NAVY (+)		235	0	235	-	-	-	-	-	-	-	-	-	-	21	21	21	21	21	21	21	22	22	22	22			0			
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>567</b>	<b>0</b>	<b>567</b>	-	-	-	-	-	-	-	-	-	-	<b>52</b>	<b>52</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	-	-	<b>0</b>			
1	2020	AF		303	0	303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	253				
1	2020	FMS (+)		167	0	167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14	139				
1	2020	NAVY (+)		227	0	227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	19	190				
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>697</b>	<b>0</b>	<b>697</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>57</b>	<b>58</b>	<b>582</b>				
1	2021	AF		225	0	225											A	-	-	-	-	-	-	-	-	-	-	-	225				
1	2021	FMS (+)		38	0	38											A	-	-	-	-	-	-	-	-	-	-	-	38				
1	2021	NAVY (+)		203	0	203											A	-	-	-	-	-	-	-	-	-	-	-	203				
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>466</b>	<b>0</b>	<b>466</b>											-	-	-	-	-	-	-	-	-	-	-	-	<b>466</b>				
1	2022	AF		155	0	155																							155				
1	2022	FMS (+)		100	0	100																							100				
1	2022	NAVY (+)		111	0	111																							111				
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>366</b>	<b>0</b>	<b>366</b>											-	-	-	-	-	-	-	-	-	-	-	-	<b>366</b>				
Captive Air Training Missile (CATM) - Block II																																	
Prior Years Deliveries: 429																																	
2	2018	AF		64	5	59	5	6	5	5	6	5	5	6	5	5	6													0			
2	2018	FMS (+)		76	6	70	7	6	7	6	6	6	7	6	7	6	6													0			
2	2018	NAVY (+)		41	3	38	3	3	4	4	3	3	4	4	4	3	3													0			
<b>2</b>	<b>2018</b>	<b>Total</b>		<b>181</b>	<b>14</b>	<b>167</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>14</b>	<b>15</b>	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
2	2019	AF		15	0	15	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	2	2	2		0			
2	2019	FMS (+)		75	0	75	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	7	7	6	6		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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X) **Item Number / Title [DODIC]:** Sidewinder (AIM-9X)

Cost Elements (Units in Each)					Fiscal Year 2021												Fiscal Year 2022												BALANCE					
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022															
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL		AUG	SEP			
2	2019		NAVY (+)	75	0	75	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7			0
2	2019		<b>Total</b>	<b>165</b>	<b>0</b>	<b>165</b>	-	-	-	-	-	-	-	-	-	-	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>15</b>	-	-			<b>0</b>		
2	2020		AF	130	0	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11	108	
2	2020		FMS (+)	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	16	
2	2020		NAVY (+)	75	0	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	63	
2	2020		<b>Total</b>	<b>225</b>	<b>0</b>	<b>225</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>19</b>	<b>19</b>	<b>187</b>	
2	2021		AF	26	0	26											A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	
2	2021		NAVY (+)	59	0	59											A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	
2	2021		<b>Total</b>	<b>85</b>	<b>0</b>	<b>85</b>											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>85</b>	
2	2022		AF	80	0	80																												80
2	2022		NAVY (+)	59	0	59																												59
2	2022		<b>Total</b>	<b>139</b>	<b>0</b>	<b>139</b>																												<b>139</b>

**All Up Round - Block II Plus**

Prior Years Deliveries: 50																																		
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE			
3	2018		AF	75	7	68	7	7	6	6	6	6	6	6	6	6	6																0	
3	2018		FMS (+)	73	6	67	6	6	6	6	6	6	6	6	6	7																	0	
3	2018		NAVY (+)	12	1	11	1	1	1	1	1	1	1	1	1	1																	0	
3	2018		<b>Total</b>	<b>160</b>	<b>14</b>	<b>146</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>14</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
3	2019		AF	80	0	80	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	7	7	7	7	7	7	7					0	
3	2019		FMS (+)	146	0	146	-	-	-	-	-	-	-	-	-	-	-	-	14	14	14	13	13	13	13	13	13	13					0	
3	2019		NAVY (+)	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	1	1	1	1	-					0	
3	2019		<b>Total</b>	<b>234</b>	<b>0</b>	<b>234</b>	-	-	-	-	-	-	-	-	-	-	-	-	<b>23</b>	<b>23</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>20</b>	-	-	<b>0</b>		
3	2020		AF	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	9		
3	2020		NAVY (+)	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	6		
3	2020		<b>Total</b>	<b>19</b>	<b>0</b>	<b>19</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>2</b>	<b>2</b>	<b>15</b>		
3	2021		AF	80	0	80													A	-	-	-	-	-	-	-	-	-	-	-	-		80	
3	2021		FMS (+)	66	0	66													A	-	-	-	-	-	-	-	-	-	-	-	-	-		66
3	2021		NAVY (+)	8	0	8													A	-	-	-	-	-	-	-	-	-	-	-	-	-		8
3	2021		<b>Total</b>	<b>154</b>	<b>0</b>	<b>154</b>													-	-	-	-	-	-	-	-	-	-	-	-	-	-		<b>154</b>
3	2022		AF	8	0	8																												8

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)	<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)
---	--	--

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2021										Fiscal Year 2022										B A L A N C E				
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021										Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P
	3	2022	NAVY (†)	8	0	8																								8	
	3	2022	<b>Total</b>	<b>16</b>	<b>0</b>	<b>16</b>																								<b>16</b>	
							O C T	N O V	D E C	J A N	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	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X) **Item Number / Title [DODIC]:** Sidewinder (AIM-9X)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
All Up Round - Block II																																		
Prior Years Deliveries: 1306																																		
	1	2018	AF	183	183	0																												0
	1	2018	FMS (+)	431	431	0																												0
	1	2018	NAVY (+)	141	141	0																												0
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>755</b>	<b>755</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
	1	2019	AF	176	176	0																												0
	1	2019	FMS (+)	156	156	0																												0
	1	2019	NAVY (+)	235	235	0																												0
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>567</b>	<b>567</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
	1	2020	AF	303	50	253	25	25	25	25	25	25	26	26	26																			0
	1	2020	FMS (+)	167	28	139	14	14	14	14	14	14	14	14	13																			0
	1	2020	NAVY (+)	227	37	190	19	19	19	19	19	19	19	19	19																			0
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>697</b>	<b>115</b>	<b>582</b>	<b>58</b>	<b>58</b>	<b>58</b>	<b>58</b>	<b>58</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>58</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
	1	2021	AF	225	0	225	-	-	-	-	-	-	-	-	-	18	18	18	19	19	19	19	19	19	19	19	19	19	19	19	19	19	0	
	1	2021	FMS (+)	38	0	38	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	0		
	1	2021	NAVY (+)	203	0	203	-	-	-	-	-	-	-	-	-	17	17	17	17	17	17	17	17	17	17	17	17	17	17	16	16	0		
	<b>1</b>	<b>2021</b>	<b>Total</b>	<b>466</b>	<b>0</b>	<b>466</b>	-	-	-	-	-	-	-	-	<b>38</b>	<b>38</b>	<b>38</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>40</b>	<b>39</b>	-	-	<b>0</b>		
	1	2022	AF	155	0	155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	129		
	1	2022	FMS (+)	100	0	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	82			
	1	2022	NAVY (+)	111	0	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	91			
	<b>1</b>	<b>2022</b>	<b>Total</b>	<b>366</b>	<b>0</b>	<b>366</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>32</b>	<b>32</b>	<b>302</b>				
Captive Air Training Missile (CATM) - Block II																																		
Prior Years Deliveries: 429																																		
	2	2018	AF	64	64	0																											0	
	2	2018	FMS (+)	76	76	0																											0	
	2	2018	NAVY (+)	41	41	0																											0	
	<b>2</b>	<b>2018</b>	<b>Total</b>	<b>181</b>	<b>181</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
	2	2019	AF	15	15	0																												0
	2	2019	FMS (+)	75	75	0																												0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				







**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** M09HAI / Sidewinder (AIM-9X) **Item Number / Title [DODIC]:** Sidewinder (AIM-9X)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2025													Fiscal Year 2026													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025													Calendar Year 2026													
							O C T	N O V	D E C	J A N	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			
All Up Round - Block II																																	
Prior Years Deliveries: 1306																																	
1	2018	AF		183	183	0																							0				
1	2018	FMS (+)		431	431	0																							0				
1	2018	NAVY (+)		141	141	0																							0				
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>755</b>	<b>755</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2019	AF		176	176	0																							0				
1	2019	FMS (+)		156	156	0																							0				
1	2019	NAVY (+)		235	235	0																							0				
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>567</b>	<b>567</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2020	AF		303	303	0																							0				
1	2020	FMS (+)		167	167	0																							0				
1	2020	NAVY (+)		227	227	0																							0				
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>697</b>	<b>697</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2021	AF		225	225	0																							0				
1	2021	FMS (+)		38	38	0																							0				
1	2021	NAVY (+)		203	203	0																							0				
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>466</b>	<b>466</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2022	AF		155	26	129	13	13	13	13	13	13	13	13	12														0				
1	2022	FMS (+)		100	18	82	9	9	8	8	8	8	8	8	8													0					
1	2022	NAVY (+)		111	20	91	10	9	9	9	9	9	9	9	9													0					
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>366</b>	<b>64</b>	<b>302</b>	<b>32</b>	<b>31</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>29</b>	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>					
Captive Air Training Missile (CATM) - Block II																																	
Prior Years Deliveries: 429																																	
2	2018	AF		64	64	0																						0					
2	2018	FMS (+)		76	76	0																						0					
2	2018	NAVY (+)		41	41	0																						0					
<b>2</b>	<b>2018</b>	<b>Total</b>		<b>181</b>	<b>181</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>					
2	2019	AF		15	15	0																						0					
2	2019	FMS (+)		75	75	0																						0					
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			





**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> M09HAI / Sidewinder (AIM-9X)	<b>Item Number / Title [DODIC]:</b> Sidewinder (AIM-9X)
---	--	--

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Raytheon Missile Systems - Tucson, AZ	300	600	1,400	0	0	0	0	0	0	6	29	35
2	Raytheon Missile Systems - Tucson, AZ	300	600	1,400	0	0	0	0	0	0	6	29	35
3	Raytheon Missile Systems - Tucson, AZ	300	600	1,400	0	0	0	0	0	0	6	29	35

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "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 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** MAMRA0 / AMRAAM

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207163F

**Line Item MDAP/MAIS Code:** 185

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 ( <i>Units in Each</i> )	10,165	220	268	168	-	168	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9,949.856	311.730	313.223	214.002	-	214.002	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	9,949.856	311.730	313.223	214.002	-	214.002	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>9,949.856</b>	<b>311.730</b>	<b>313.223</b>	<b>214.002</b>	-	<b>214.002</b>	-	-	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	86.790	0.529	2.091	3.003	-	3.003	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	0.979	1.417	1.169	1.274	-	1.274	-	-	-	-	-	-

**Description:**

The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the premier all-weather, all-environment radar guided missile developed jointly by the United States Air Force (USAF) and the United States Navy (USN). USAF is the lead service. AMRAAM is a small, light, fast missile with improved capabilities against very low and high-altitude targets in an Electronic Attack (EA) environment. Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

Any difference between the All Up Round (AUR) Unit Costs of the USAF and USN is the result of the variations in procurement of missile types by each service.

The FY 2022 funding request was reduced by \$57.576 million to account for the availability of prior year execution balances.

Funding for this exhibit contained in PE 0207163F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** MAMRA0 / AMRAAM

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207163F

**Line Item MDAP/MAIS Code:** 185

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	AMRAAM	P-5a, P-21	A		10,165 / 9,949.856	220 / 311.730	268 / 313.223	168 / 214.002	- / -	168 / 214.002
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>10,165 / 9,949.856</b>	<b>220 / 311.730</b>	<b>268 / 313.223</b>	<b>168 / 214.002</b>	<b>- / -</b>	<b>168 / 214.002</b>

\*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:**  
 FY22 continues procurement and support of AMRAAM for the Air Force and Navy in Lot 36. USAF funds will procure 168 AMRAAM missiles in support of warfighter requirements. Missile configurations may vary based on warfighter needs, which include assets used for training and Weapon System Evaluation Program (WSEP).  
  
 Funding provides for test and technical production support, procurement of training equipment and test equipment/test equipment upgrades to support the AMRAAM configurations. Additionally, funding is used to resolve production Diminishing Manufacturing Sources and Material Shortages ,obsolescence issues, studies, bridge buys, life of type buys, supplier/parts replacement and qualification activities to preserve future production capabilities and capacities.  
  
 Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, US Code Section 2308 BUY-TO-BUDGET ACQUISITION.



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	10,165	220	268	168	-	168
Gross/Weapon System Cost (\$ in Millions)	9,949.856	311.730	313.223	214.002	-	214.002
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	9,949.856	311.730	313.223	214.002	-	214.002
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>9,949.856</b>	<b>311.730</b>	<b>313.223</b>	<b>214.002</b>	<b>-</b>	<b>214.002</b>

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

Initial Spares (\$ in Millions)	86.790	0.529	2.091	3.003	-	3.003
Gross/Weapon System Unit Cost (\$ in Millions)	0.979	1.417	1.169	1.274	-	1.274

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Hardware - Hardware End Item Cost</b>																		
Recurring Cost																		
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>	1.033	1,980	2,044.845	0.984	220	216.427	0.981	228	223.623	0.973	168	163.399	-	-	-	0.973	168	163.399
AIM-120 Missile Captive Air Training Missile (CATM) <sup>(†)</sup>	0.635	444	281.823	-	-	0.000	0.561	40	22.431	-	-	0.000	-	-	-	-	-	0.000
Warranty	-	-	70.328	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Diminishing Manufacturing Sources/Material Shortages (DMS/MS)	-	-	483.792	-	-	57.318	-	-	31.595	-	-	16.615	-	-	-	-	-	16.615
Tooling and Test Equipment	-	-	131.718	-	-	1.378	-	-	3.766	-	-	2.502	-	-	-	-	-	2.502
Engineering Change Orders	-	-	2.755	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total Prior Years Costs	0.846	7,741	6,545.560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: Recurring Cost</b>	<b>-</b>	<b>-</b>	<b>9,560.821</b>	<b>-</b>	<b>-</b>	<b>275.123</b>	<b>-</b>	<b>-</b>	<b>281.415</b>	<b>-</b>	<b>-</b>	<b>182.516</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>182.516</b>
<b>Subtotal: Hardware - Hardware End Item Cost</b>	<b>-</b>	<b>-</b>	<b>9,560.821</b>	<b>-</b>	<b>-</b>	<b>275.123</b>	<b>-</b>	<b>-</b>	<b>281.415</b>	<b>-</b>	<b>-</b>	<b>182.516</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>182.516</b>
<b>Ancillary Equipment - AncillaryEquipment End Item Cost</b>																		
Recurring Cost																		
Containers and Cables	-	-	10.555	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>												<b>Date:</b> May 2021					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2						<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM						<b>Item Number / Title [DODIC]:</b> AMRAAM					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	10.555	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250
<i>Subtotal: Ancillary Equipment - Ancillary Equipment End Item Cost</i>	-	-	10.555	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250
<b>Support - Support End Item Cost</b>																		
Production Test/Support	-	-	134.792	-	-	9.702	-	-	4.546	-	-	2.697	-	-	-	-	-	2.697
PMA Other Government Costs	-	-	15.537	-	-	2.468	-	-	2.056	-	-	2.517	-	-	-	-	-	2.517
PMA Contractor Services	-	-	23.137	-	-	2.595	-	-	2.697	-	-	2.751	-	-	-	-	-	2.751
Training Equipment	-	-	205.014	-	-	20.592	-	-	21.259	-	-	22.271	-	-	-	-	-	22.271
<i>Subtotal: Support - Support End Item Cost</i>	-	-	378.480	-	-	35.357	-	-	30.558	-	-	30.236	-	-	-	-	-	30.236
<b>Gross/Weapon System Cost</b>	<b>0.979</b>	<b>10,165</b>	<b>9,949.856</b>	<b>1.417</b>	<b>220</b>	<b>311.730</b>	<b>1.169</b>	<b>268</b>	<b>313.223</b>	<b>1.274</b>	<b>168</b>	<b>214.002</b>	-	-	-	<b>1.274</b>	<b>168</b>	<b>214.002</b>

**Remarks:**

- 1) The FY20 Lot 34 Contract was awarded in March 2021. Under Buy to Budget Authority, the Air Force procured 74 missiles, 146 fewer than PB21 approved quantity of 220.
- 2) Unit cost quantity dependent. Changes in total quantity directly impacts unit price for USAF, USN, and Foreign Military Sales. The Total Prior Years Weapon System Cost Element, Prior Years column entries are composite numbers for all AIM-120 variants.
- 3) The Production/Test Support cost element includes costs such as engineering studies, technical support, network security, and modification of special test assets.
- 4) The Training Equipment cost element includes telemetry instrumentation units to support Weapon System Evaluation Program (WSEP) and modification of telemetry components to maintain compatibility with F-22, F-35 and test range infrastructure.
- 5) CATMS: Total Procurement objective includes CATMS & AUR. Quantity subject to changes based on warfighter requirements.

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

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2022 Air Force								<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2				<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM				<b>Item Number / Title [DODIC]:</b> AMRAAM				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2018	Jul 2020	185	1.072	Y		Jan 2017
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Dec 2019	Apr 2021	187	1.023	Y		Nov 2017
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2021	Jul 2022	220	0.984	Y		Sep 2018
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Jul 2021	Jul 2023	228	0.981	Y		Sep 2018
AIM-120 Missile All Up Round (AUR) <sup>(†)</sup>		2022	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Jul 2022	Jul 2024	168	0.973	Y		Sep 2018
AIM-120 Missile Captive Air Training Missile (CATM) <sup>(†)</sup>		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2021	Apr 2023	40	0.561	Y		Sep 2018

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

**Remarks:**

Unit Cost is quantity dependent; changes in total quantity directly impact unit price for USAF, USN, and Foreign Military Sales.

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM
---	---	---

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2018													Fiscal Year 2019													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
AIM-120 Missile All Up Round (AUR)																																	
Prior Years Deliveries: 1608																																	
	1	2018	AF	185	0	185																							185				
	1	2018	FMS (+)	279	0	279																							279				
	1	2018	NAVY (+)	120	0	120																							120				
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>584</b>	<b>0</b>	<b>584</b>																							<b>584</b>				
	1	2019	AF	187	0	187																							187				
	1	2019	FMS (+)	434	0	434																							434				
	1	2019	NAVY (+)	167	0	167																							167				
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>788</b>	<b>0</b>	<b>788</b>																							<b>788</b>				
	1	2020	AF	220	0	220																							220				
	1	2020	FMS (+)	324	0	324																							324				
	1	2020	NAVY (+)	111	0	111																							111				
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>655</b>	<b>0</b>	<b>655</b>																							<b>655</b>				
	1	2021	AF	228	0	228																							228				
	1	2021	FMS (+)	426	0	426																							426				
	1	2021	NAVY (+)	95	0	95																							95				
	<b>1</b>	<b>2021</b>	<b>Total</b>	<b>749</b>	<b>0</b>	<b>749</b>																							<b>749</b>				
	1	2022	AF	168	0	168																							168				
	1	2022	FMS (+)	350	0	350																							350				
	<b>1</b>	<b>2022</b>	<b>Total</b>	<b>518</b>	<b>0</b>	<b>518</b>																							<b>518</b>				

AIM-120 Missile Captive Air Training Missile (CATM)																														
Prior Years Deliveries: 444																														
	2	2021	AF	40	0	40																							40	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM
---	---	---

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2020														Fiscal Year 2021														BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
AIM-120 Missile All Up Round (AUR)																																			
Prior Years Deliveries: 1608																																			
1	2018	AF		185	0	185	-	-	-	-	-	-	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-	82			0				
1	2018	FMS (+)		279	0	279	-	-	-	-	-	-	-	-	-	138	-	-	-	-	-	-	-	-	-	-	-	-	141			0			
1	2018	NAVY (+)		120	0	120	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	-	69			0			
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>584</b>	<b>0</b>	<b>584</b>	-	-	-	-	-	-	-	-	-	<b>292</b>	-	-	-	-	-	-	-	-	-	-	-	<b>292</b>	-	-	-	<b>0</b>			
1	2019	AF		187	0	187			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	91			
1	2019	FMS (+)		434	0	434			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	-	286			
1	2019	NAVY (+)		167	0	167			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	84			
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>788</b>	<b>0</b>	<b>788</b>			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>163</b>	-	-	<b>461</b>			
1	2020	AF		220	0	220																										220			
1	2020	FMS (+)		324	0	324																										324			
1	2020	NAVY (+)		111	0	111																										111			
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>655</b>	<b>0</b>	<b>655</b>																										<b>655</b>			
1	2021	AF		228	0	228																										228			
1	2021	FMS (+)		426	0	426																										426			
1	2021	NAVY (+)		95	0	95																										95			
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>749</b>	<b>0</b>	<b>749</b>																										<b>749</b>			
1	2022	AF		168	0	168																										168			
1	2022	FMS (+)		350	0	350																										350			
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>518</b>	<b>0</b>	<b>518</b>																										<b>518</b>			

AIM-120 Missile Captive Air Training Missile (CATM)																																
Prior Years Deliveries: 444																																
2	2021	AF		40	0	40																									40	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022													Fiscal Year 2023													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
AIM-120 Missile All Up Round (AUR)																																		
Prior Years Deliveries: 1608																																		
1	2018	AF		185	185	0																												0
1	2018	FMS (+)		279	279	0																												0
1	2018	NAVY (+)		120	120	0																												0
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>584</b>	<b>584</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
1	2019	AF		187	96	91	46	-	-	45																								0
1	2019	FMS (+)		434	148	286	75	-	-	211																								0
1	2019	NAVY (+)		167	83	84	42	-	-	42																								0
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>788</b>	<b>327</b>	<b>461</b>	<b>163</b>	-	-	<b>298</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
1	2020	AF		220	0	220	-	-	-	-	-	-	-	55	-	-	55	-	-	55	-	-	55	-	-	55							0	
1	2020	FMS (+)		324	0	324	-	-	-	-	-	-	-	81	-	-	81	-	-	81	-	-	81	-	-	81							0	
1	2020	NAVY (+)		111	0	111	-	-	-	-	-	-	-	30	-	-	32	-	-	24	-	-	25										0	
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>655</b>	<b>0</b>	<b>655</b>	-	-	-	-	-	-	-	<b>166</b>	-	-	<b>168</b>	-	-	<b>160</b>	-	-	<b>161</b>	-	-	<b>161</b>	-	-	-	-	-	<b>0</b>		
1	2021	AF		228	0	228	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	-	-		171		
1	2021	FMS (+)		426	0	426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106	-	-		320		
1	2021	NAVY (+)		95	0	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-		72		
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>749</b>	<b>0</b>	<b>749</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>186</b>	-	-		<b>563</b>			
1	2022	AF		168	0	168								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		168		
1	2022	FMS (+)		350	0	350								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		350		
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>518</b>	<b>0</b>	<b>518</b>								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		<b>518</b>		

AIM-120 Missile Captive Air Training Missile (CATM)

Prior Years Deliveries: 444																																	
2	2021	AF		40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	10	-	-	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	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

AIM-120 Missile All Up Round (AUR)

Prior Years Deliveries: 1608																													
1	2018	AF		185	185	0																							0
1	2018	FMS (+)		279	279	0																							0
1	2018	NAVY (+)		120	120	0																							0
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>584</b>	<b>584</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>
1	2019	AF		187	187	0																							0
1	2019	FMS (+)		434	434	0																							0
1	2019	NAVY (+)		167	167	0																							0
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>788</b>	<b>788</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>
1	2020	AF		220	220	0																							0
1	2020	FMS (+)		324	324	0																							0
1	2020	NAVY (+)		111	111	0																							0
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>655</b>	<b>655</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>
1	2021	AF		228	57	171	57	-	-	57	-	-	57																0
1	2021	FMS (+)		426	106	320	107	-	-	106	-	-	107																0
1	2021	NAVY (+)		95	23	72	24	-	-	24	-	-	24																0
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>749</b>	<b>186</b>	<b>563</b>	<b>188</b>	-	-	<b>187</b>	-	-	<b>188</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>
1	2022	AF		168	0	168	-	-	-	-	-	-	-	-	-	42	-	-	42	-	-	42	-	-	42				0
1	2022	FMS (+)		350	0	350	-	-	-	-	-	-	-	-	87	-	-	88	-	-	88	-	-	87				0	
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>518</b>	<b>0</b>	<b>518</b>	-	-	-	-	-	-	-	-	<b>129</b>	-	-	<b>130</b>	-	-	<b>130</b>	-	-	<b>129</b>	-	-	-	-	<b>0</b>

AIM-120 Missile Captive Air Training Missile (CATM)

Prior Years Deliveries: 444																														
2	2021	AF		40	20	20	10	-	-	10																			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

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> MAMRA0 / AMRAAM	<b>Item Number / Title [DODIC]:</b> AMRAAM
---	---	---

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Raytheon Missile Systems - Tucson, AZ	400 <sup>(1)</sup>	400	1,200	0	0	0	0	0	0	10	24	34
2	Raytheon Missile Systems - Tucson, AZ	400	400	1,200	0	0	0	0	0	0	6	25	31

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

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

**Footnotes:**

<sup>(1)</sup> MSR for 2022: AIM-120 MSR is 400 missiles per year, consisting of the sum of USAF, USN, and approved FMS procurement for the year with no less than 100 of a particular variant. MAX for 2022: Factory capacity enables production of 1,200 missiles.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** PRDTA2 / Predator Hellfire Missile

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305219F

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	3,859	4,517	1,077	-	1,077	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	299.631	183.549	103.684	-	103.684	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	299.631	183.549	103.684	-	103.684	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>299.631</b>	<b>183.549</b>	<b>103.684</b>	-	<b>103.684</b>	-	-	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	0.070	0.036	0.085	-	0.085	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	0.078	0.041	0.096	-	0.096	-	-	-	-	-	-

**Description:**

FY20 funding totals include 180.771M appropriated for Overseas Contingency Operations.  
 FY21 funding totals include 143.420M appropriated for Overseas Contingency Operations.  
 FY22 funding totals include 56.833M requested for Direct War Requirements.

The Army is the Lead Service for the HELLFIRE Missile program with Air Force missiles being procured through the Army's Redstone Arsenal. HELLFIRE missiles (all variants) provide precision-kill capability and has become a key weapon in Overseas Contingency Operations (OCO). Laser HELLFIRE uses semi-active laser terminal guidance. The latest variant provides for point target precision strike and is effective against countermeasures. The HELLFIRE missiles are used by the MQ-9 Reaper aircraft.

HELLFIRE procurement funding supports the entire HELLFIRE system to include resolution of obsolescence, end-of-life buys, safety, insensitive munitions, reliability, weapon integration activities, test sets, engineering changes, modifications, facilitization, production ramp-up activities and production issues. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. HELLFIRE unit cost may vary based on procurement quantities of Lead Service, other Services and/or Foreign Military Sales (FMS) for HELLFIRE. Prior to FY08, HELLFIRE missiles were procured under the Predator PE 0305219F.

Note: These funds may also procure inventoried items which may not be procured on an annual basis and could be required on an emerging basis. Variations to cover critical shortfalls to inventory objectives as well as actual and planned expenditures will be addressed during execution year. Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S Code Section 2308 BUY-TO-BUDGET ACQUISITION.

Funding for this exhibit contained in PE 0201109F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** PRDTA2 / Predator Hellfire Missile

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305219F

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Predator Hellfire Missile	P-5a, P-21	A		- / -	3,859 / 299.631	4,517 / 183.549	1,077 / 103.684	- / -	1,077 / 103.684
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	<b>3,859 / 299.631</b>	<b>4,517 / 183.549</b>	<b>1,077 / 103.684</b>	- / -	<b>1,077 / 103.684</b>

\*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:**  
 FY22 funding procures AGM-114 HELLFIRE missiles, Telemetry Measurement (TM) kits, load training missiles, existing warhead improvements, height-of-burst (HOB) kits and production implementation for the HOB capability for R-model variants which incorporates a multi-purpose warhead, variable delay fuze, and increased lethality. Multiple variants (R-2,R9E,R4,R12E,etc.) of the HELLFIRE missile may be procured based upon operational requirements for various warheads and the enhanced weapon engagement zone. The HELLFIRE missiles are used for test, training, and operations.

FY22 budget request will procure 1176 missiles, to include 711 missiles procured for Direct War Requirements, needed to replenish HELLFIRE inventory levels. Quantities are based on current estimated prices for purchase through the Army.

Note: Budgeted Quantities should be 2270 for FY21. Based on current cost estimates, quantities should be 1176 for FY22.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	-	3,859	4,517	1,077	-	1,077
Gross/Weapon System Cost (\$ in Millions)	-	299.631	183.549	103.684	-	103.684
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	299.631	183.549	103.684	-	103.684
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	<b>299.631</b>	<b>183.549</b>	<b>103.684</b>	-	<b>103.684</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	0.078	0.041	0.096	-	0.096

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway - Flyaway End Item Cost</b>																		
Recurring Cost																		
AGM-114 - All-up-Rounds <sup>(†)</sup>	-	-	-	0.070	3,859	270.130	0.036	4,517	160.744	0.085	1,077	91.279	-	-	-	0.085	1,077	91.279
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	270.130	-	-	160.744	-	-	91.279	-	-	-	-	-	91.279
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	-	-	-	270.130	-	-	160.744	-	-	91.279	-	-	-	-	-	91.279
<b>Hardware - Hardware End Item Cost</b>																		
Recurring Cost																		
First Destination Shipping charges	-	-	-	-	-	1.900	-	-	1.900	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.900	-	-	1.900	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	1.900	-	-	1.900	-	-	1.000	-	-	-	-	-	1.000
<b>Support - Support End Item Cost</b>																		
Program Management Administration	-	-	-	-	-	15.180	-	-	11.497	-	-	6.221	-	-	-	-	-	6.221
Production Engineering Support	-	-	-	-	-	12.421	-	-	9.408	-	-	5.184	-	-	-	-	-	5.184
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	27.601	-	-	20.905	-	-	11.405	-	-	-	-	-	11.405
<b>Gross/Weapon System Cost</b>	-	-	-	0.078	3,859	299.631	0.041	4,517	183.549	0.096	1,077	103.684	-	-	-	0.096	1,077	103.684

**Remarks:**

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>	
Note: Budgeted quantities should be 2270 for FY21 with a unit cost of \$0.071M. Based on the most recent cost estimates, quantities should be 1176 for FY22 with a unit cost of \$0.074M.		
(†) indicates the presence of a P-5a		

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile
---	--	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AGM-114 - All-up-Rounds <sup>(†)</sup>		2020	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2020	Oct 2022	3,859	0.070	Y		Dec 2016
AGM-114 - All-up-Rounds <sup>(†)</sup>		2021	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2021	Oct 2023	4,517	0.036	Y		Dec 2018
AGM-114 - All-up-Rounds <sup>(†)</sup>		2022	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2022	Oct 2024	1,077	0.085	Y		Dec 2020

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

**Remarks:**

Army Redstone Arsenal awarded a FPIF contract for FY18-21 all-up-round missile procurement September 2018.

Army Redstone Arsenal released a request for proposal in December 2020 for an FY22-25 all up round missile procurement contract.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force			<b>Date:</b> May 2021				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2		<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile			<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile		

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2020										Fiscal Year 2021										BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020										Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G
AGM-114 - All-up-Rounds																														
	1	2020	AF	3,859	0	3,859																								3,859
	1	2020	ARMY (#)	5,112	0	5,112																								5,112
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>8,971</b>	<b>0</b>	<b>8,971</b>																								<b>8,971</b>
	1	2021	AF	4,517	0	4,517																								
	1	2022	AF	1,077	0	1,077																								
							O C T	N O V	D E C	J A N	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

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile
---	--	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022													Fiscal Year 2023													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
AGM-114 - All-up-Rounds																																	
1		2020	AF	3,859	0	3,859	-	-	-	-	-	-	-	-	-	-	-	-	-	321	321	321	321	321	321	322	322	322	322	322	322	322	0
1		2020	ARMY (#)	5,112	0	5,112	-	-	-	-	-	-	-	-	-	-	-	-	-	427	427	426	426	426	426	426	426	426	426	426	425	425	0
<b>1</b>		<b>2020</b>	<b>Total</b>	<b>8,971</b>	<b>0</b>	<b>8,971</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>748</b>	<b>748</b>	<b>747</b>	<b>747</b>	<b>747</b>	<b>748</b>	<b>748</b>	<b>748</b>	<b>748</b>	<b>748</b>	<b>747</b>	<b>747</b>	<b>0</b>	
1		2021	AF	4,517	0	4,517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,517
1		2022	AF	1,077	0	1,077																											1,077
							O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile
---	--	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
AGM-114 - All-up-Rounds																															
1		2020	AF	3,859	3,859	0																							0		
1		2020	ARMY (#)	5,112	5,112	0																							0		
<b>1</b>		<b>2020</b>	<b>Total</b>	<b>8,971</b>	<b>8,971</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
1		2021	AF	4,517	0	4,517	377	377	377	377	377	376	376	376	376	376	376											0			
1		2022	AF	1,077	0	1,077	-	-	-	-	-	-	-	-	-	-	-	90	90	90	90	90	90	90	90	90	90	89	89	89	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	



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> PRDTA2 / Predator Hellfire Missile	<b>Item Number / Title [DODIC]:</b> Predator Hellfire Missile
---	--	--

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Missile and Fire Ctrl - Orlando FL	1,200	6,000	11,000	0	12	25	37	0	0	0	0

**Remarks:**

Yearly Minimum Sustainment Rate (MSR) = 1,200 missiles.  
 Yearly Economical Production Rate (1-8-5) = 6,000 missiles.  
 Yearly Maximum Production Rate (MPR) = 11,000 missiles.

MSR and MPR consist of the sum of USAF, USN, Army, approved FMS, and Joint-Air-to-Ground Missile (JAGM) procurements for the year.

JAGM guidance section is integrated with the HELLFIRE II propulsion, warhead, and control section, and shares the HELLFIRE production capacity. Reference BP20 JAGM00 for JAGM procurement.

FMS orders are procured through the Army and are funded through a separate Line Item.

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

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

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

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** SDB000 / Small Diameter Bomb

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207327F

**Line Item MDAP/MAIS Code:** 439

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 ( <i>Units in Each</i> )	34,021	7,078	2,462	998	-	998	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,744.063	273.288	95.827	82.819	-	82.819	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,744.063	273.288	95.827	82.819	-	82.819	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,744.063</b>	<b>273.288</b>	<b>95.827</b>	<b>82.819</b>	<b>-</b>	<b>82.819</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	0.048	0.032	0.030	0.060	-	0.060	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	0.051	0.039	0.039	0.083	-	0.083	-	-	-	-	-	-

**Description:**

FY21 funding totals include \$50.352M appropriated for Overseas Contingency Operations (OCO).

FY22 funding totals include \$22.245M requested for Direct War Requirements.

GBU-39/B: Small Diameter Bomb Increment I (SDB I) is an Air Force ACAT II program providing increased kills per sortie on current and future aircraft platforms. SDB I addresses the following specific warfighter requirements: multiple kills per pass; multiple ordnance carriage; adverse weather; precision munitions capability; capability against fixed and stationary targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; reduced susceptibility of munitions to countermeasures; and standoff or Close Air Support (CAS) operational capability. Threshold aircraft is the F-15E. Objective aircraft include: F-22A, F-16C/D Block 30/40/50, F-35A, B-1, A-10, B-52, B-21, MQ-9, and AC-130W/J. Integrated platforms include: F-15E, F-22A, AC-130W/J, F-16C/D Block 30/40/50, and F-35A. SDB I completed IOT&E in Jun 2006 and commenced Full Rate Production (FRP) in Dec 2006.

GBU-39A/B: Small Diameter Bomb I Focused Lethality Munition (FLM) is a low collateral damage variant of SDB I. FLM has a carbon fiber warhead case which disintegrates upon fill detonation, minimizing fragmentation effects to personnel and property.

GBU-39B/B: Laser SDB is a laser variant of the baseline SDB I. Laser SDB is a 250-pound class, air-launched weapon with deployable wings to achieve standoff range, has a laser seeker to self-target and a GPS-only mode, has a height-of-burst (HOB) fuze to provide selectable weapons effects, and has a penetration warhead.

SDB I weapons and weapon containers are procured together as a system. Individual containers can be procured separately as requirements dictate. SDB I procurement supports current combat operations and replenishment of SDB I weapons and its variants used in these operations. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. For example the integration of a qualified Strategic Anti-Jam Beam-forming Receiver (SABR-Y) and M-Code capable GPS receivers. Funding may also be used to resolve performance deficiencies identified in the system. This will be accomplished through studies, bridge buys, life of type buys, supplier/parts replacement, and qualification (including flight/ground test activities) to preserve future production capabilities and capacities.

GBU-53/B: Small Diameter Bomb Increment II (SDB II) quantities and Obligation Authority were included in SDB000 for FY18 and earlier. Reference BP20 SDB002 for the SDB II FY19 and out-years.

Funding for this exhibit contained in PE 0207327F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** SDB000 / Small Diameter Bomb

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207327F

**Line Item MDAP/MAIS Code:** 439

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 <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-5	Small Diameter Bomb	P-5a, P-21	A		34,021 / 1,744.063	7,078 / 273.288	2,462 / 95.827	998 / 82.819	- / -	998 / 82.819
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>34,021 / 1,744.063</b>	<b>7,078 / 273.288</b>	<b>2,462 / 95.827</b>	<b>998 / 82.819</b>	<b>- / -</b>	<b>998 / 82.819</b>

\*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:**  
FY22 budget request will procure 998 weapons, to include 371 weapons procured for Direct War Requirements, needed to replenish operational expenditures.

Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S Code Section 2308 BUY-TO-BUDGET ACQUISITION.

Note: Budgeted quantities should be 5371 for FY20. Based on current cost estimates, quantities should be 1217 for FY21.

**UNCLASSIFIED**

**Exhibit P-5, Cost Analysis: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB000 / Small Diameter Bomb	<b>Item Number / Title [DODIC]:</b> Small Diameter Bomb
---	--	--

**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)	34,021	7,078	2,462	998	-	998
Gross/Weapon System Cost (\$ in Millions)	1,744.063	273.288	95.827	82.819	-	82.819
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,744.063	273.288	95.827	82.819	-	82.819
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,744.063</b>	<b>273.288</b>	<b>95.827</b>	<b>82.819</b>	<b>-</b>	<b>82.819</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.051	0.039	0.039	0.083	-	0.083

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway - Flyaway End Item Cost</b>																		
Recurring Cost																		
SDB Increment II All Up Round Weapon	0.152	1,276	193.938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weapon Containers	-	-	3.918	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDB Increment I <sup>(†)</sup>	0.043	32,012	1,380.288	0.031	6,878	210.997	0.030	2,462	73.042	0.060	998	60.177	-	-	-	0.060	998	60.177
Focused Lethality Munition	0.100	500	50.000	0.080	200	15.983	-	-	-	-	-	-	-	-	-	-	-	-
SDB Increment II Test Vehicle	-	-	9.154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1,637.298</i>	-	-	<i>226.980</i>	-	-	<i>73.042</i>	-	-	<i>60.177</i>	-	-	-	-	-	<i>60.177</i>
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	<i>1,637.298</i>	-	-	<i>226.980</i>	-	-	<i>73.042</i>	-	-	<i>60.177</i>	-	-	-	-	-	<i>60.177</i>

<b>Support - Support End Item Cost</b>																		
Training Equipment	-	-	2.920	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Operational Flight Program Updates & Test	-	-	21.250	-	-	0.000	-	-	-	-	-	0.775	-	-	-	-	-	0.775
Logistics Support	-	-	0.504	-	-	0.000	-	-	0.500	-	-	0.509	-	-	-	-	-	0.509
Production Testing	-	-	33.446	-	-	1.348	-	-	0.750	-	-	5.729	-	-	-	-	-	5.729
PMA Contractor Services	-	-	8.474	-	-	1.024	-	-	1.335	-	-	1.660	-	-	-	-	-	1.660
PMA Other Government Costs	-	-	3.321	-	-	0.147	-	-	0.300	-	-	0.300	-	-	-	-	-	0.300
Obsolescence Contracts	-	-	36.850	-	-	22.030	-	-	0.000	-	-	6.017	-	-	-	-	-	6.017
Integration	-	-	0.000	-	-	21.759	-	-	19.900	-	-	7.652	-	-	-	-	-	7.652

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>												<b>Date: May 2021</b>					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2						<b>P-1 Line Item Number / Title:</b> SDB000 / Small Diameter Bomb						<b>Item Number / Title [DODIC]:</b> Small Diameter Bomb					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Support End Item Cost</i>	-	-	106.765	-	-	46.308	-	-	22.785	-	-	22.642	-	-	-	-	-	22.642
<b>Gross/Weapon System Cost</b>	0.051	34,021	1,744.063	0.039	7,078	273.288	0.039	2,462	95.827	0.083	998	82.819	-	-	-	0.083	998	82.819

**Remarks:**

Budgeted quantities should be 5371 for FY20, to include 200 Focused Lethality Munitions, with a unit cost of \$0.040M. Based on the most recent cost estimates, quantities should be 1217 for FY21 with a unit cost of \$0.060M.

FY22 Base and Direct War funding procures SDB I weapons. \$19.9M in FY21 and \$7.652M in FY22 is budgeted for M-Code Integration to meet the requirement mandated by Public Law 111-383. \$21.759M in FY20 is for SABR Y integration. Unit cost increase due to procurement of SDB I weapons integrated with SABR-Y in FY21 and FY22.

Increased production testing costs in FY22 for M-code test and evaluation.

\$22M obsolescence cost in FY20 for Bomb Rack Unit to fix a conformance issue with the SDB lug.

PMA Contractor Services: Engineering, Professional, and Administrative Support Services (EPASS) contract support  
PMA Other Government Costs: Travel, Government Purchase Card (GPC) and Central Support

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

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2022 Air Force** **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB000 / Small Diameter Bomb	<b>Item Number / Title [DODIC]:</b> Small Diameter Bomb
---	--	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDB Increment I <sup>(†)</sup>		2018	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2018	Apr 2020	6,827	0.035	Y		Jan 2018
SDB Increment I <sup>(†)</sup>		2019	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Sep 2020	Mar 2021	5,069	0.036	Y		Jul 2018
SDB Increment I <sup>(†)</sup>		2020	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Nov 2020	May 2021	6,878	0.031	Y		Jan 2020
SDB Increment I <sup>(†)</sup>		2021	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Nov 2021	Jan 2023	2,462	0.030	Y		Jan 2021
SDB Increment I <sup>(†)</sup>		2022	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Nov 2022	Jan 2024	998	0.060	Y		Jan 2022

(†) indicates the presence of a P-21

**Remarks:**

1. SDB I FY18 funds were obligated on the Lot 14 contract and the Focused Lethality Munition (FLM) UCA, both awarded in August 2018. Remaining FLM will be procured in Lot 15.
2. SDB I FY19 funds will obligate on Lot 15 contract to award in September 2020.
3. SDB I FY20 funds will obligate on Lot 16 contract to award in November 2020. Includes funding to procure 200 FLM on Lot 16 contract. Budgeted quantities should be 5171 for FY20 with a unit cost of \$0.041M.
4. SDB I FY21 funding to obligate on Lot 17 contract in 1QFY22. Funds include \$50.352M OCO appropriated for procurement of SDB I weapons. Based on current cost estimates, quantities should be 1217 for FY21 with a unit cost of \$0.060M. Unit cost increase in FY21 due to procurement of SDB I weapons integrated with SABR-Y.
5. SDB I FY22 funding to obligate on Lot 18 contract in 1QFY23.

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB000 / Small Diameter Bomb	<b>Item Number / Title [DODIC]:</b> Small Diameter Bomb
---	--	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
SDB Increment I																															
Prior Years Deliveries: 20116																															
	1	2018	AF	6,827	0	6,827																							6,827		
	1	2018	FMS (+)	480	0	480																							480		
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>7,307</b>	<b>0</b>	<b>7,307</b>																							<b>7,307</b>		
	1	2019	AF	5,069	0	5,069																							5,069		
	1	2019	FMS (+)	1,420	0	1,420																							1,420		
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>6,489</b>	<b>0</b>	<b>6,489</b>																							<b>6,489</b>		
	1	2020	AF	6,878	0	6,878																							6,878		
	1	2020	FMS (+)	563	0	563																							563		
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>7,441</b>	<b>0</b>	<b>7,441</b>																							<b>7,441</b>		
	1	2021	AF	2,462	0	2,462																							2,462		
	1	2022	AF	998	0	998																							998		



**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** SDB000 / Small Diameter Bomb **Item Number / Title [DODIC]:** Small Diameter Bomb

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2020													Fiscal Year 2021													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020													Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
SDB Increment I																																	
Prior Years Deliveries: 20116																																	
1	2018	AF		6,827	0	6,827	-	-	-	-	-	-	392	756	701	150	778	821	860	489	690	494	308	388							0		
1	2018	FMS (+)		480	0	480	-	-	-	-	212	80	-	-	-	-	-	-	188	-	-	-	-							0			
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>7,307</b>	<b>0</b>	<b>7,307</b>	-	-	-	-	<b>212</b>	<b>80</b>	<b>392</b>	<b>756</b>	<b>701</b>	<b>150</b>	<b>778</b>	<b>821</b>	<b>860</b>	<b>677</b>	<b>690</b>	<b>494</b>	<b>308</b>	<b>388</b>	-	-	-	-	-	-	<b>0</b>		
1	2019	AF		5,069	0	5,069													A -	-	-	-	-	116	359	322	284	607	750	800	1,831		
1	2019	FMS (+)		1,420	0	1,420													A -	-	-	-	119	119	119	119	118	118	118	118	354		
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>6,489</b>	<b>0</b>	<b>6,489</b>													-	-	-	-	<b>119</b>	<b>119</b>	<b>235</b>	<b>478</b>	<b>440</b>	<b>402</b>	<b>725</b>	<b>868</b>	<b>918</b>	<b>2,185</b>	
1	2020	AF		6,878	0	6,878													A -	-	-	-	-	-	37	37	38	38	-	-	6,728		
1	2020	FMS (+)		563	0	563													A -	-	-	-	-	-	-	-	-	-	-	-	563		
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>7,441</b>	<b>0</b>	<b>7,441</b>													-	-	-	-	-	-	<b>37</b>	<b>37</b>	<b>38</b>	<b>38</b>	-	-	<b>7,291</b>		
1	2021	AF		2,462	0	2,462																									2,462		
1	2022	AF		998	0	998																									998		

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** SDB000 / Small Diameter Bomb **Item Number / Title [DODIC]:** Small Diameter Bomb

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2022														Fiscal Year 2023														BALANCE
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
SDB Increment I																																			
Prior Years Deliveries: 20116																																			
1	2018	AF		6,827	6,827	0																							0						
1	2018	FMS (+)		480	480	0																							0						
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>7,307</b>	<b>7,307</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>						
1	2019	AF		5,069	3,238	1,831	769	589	473																				0						
1	2019	FMS (+)		1,420	1,066	354	118	118	118																				0						
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>6,489</b>	<b>4,304</b>	<b>2,185</b>	<b>887</b>	<b>707</b>	<b>591</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>						
1	2020	AF		6,878	150	6,728	-	561	561	561	561	561	561	561	560	560	560	560	-	-									0						
1	2020	FMS (+)		563	0	563	-	-	-	46	47	47	47	47	47	47	47	47	47	47									0						
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>7,441</b>	<b>150</b>	<b>7,291</b>	-	<b>561</b>	<b>561</b>	<b>607</b>	<b>608</b>	<b>608</b>	<b>608</b>	<b>608</b>	<b>608</b>	<b>607</b>	<b>607</b>	<b>607</b>	<b>607</b>	<b>47</b>	<b>47</b>	-	-	-	-	-	-	<b>0</b>							
1	2021	AF		2,462	0	2,462		A -	-	-	-	-	-	-	-	-	-	-	-	-			206	206	205	205	205	205	205	205	205	205	615		
1	2022	AF		998	0	998																								998					

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F / 02 / 2 **P-1 Line Item Number / Title:** SDB000 / Small Diameter Bomb **Item Number / Title [DODIC]:** Small Diameter Bomb

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024													Fiscal Year 2025													BALANCE				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024													Calendar Year 2025																
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
SDB Increment I																																				
Prior Years Deliveries: 20116																																				
1	2018	AF		6,827	6,827	0																														0
1	2018	FMS (+)		480	480	0																														0
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>7,307</b>	<b>7,307</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
1	2019	AF		5,069	5,069	0																													0	
1	2019	FMS (+)		1,420	1,420	0																													0	
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>6,489</b>	<b>6,489</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
1	2020	AF		6,878	6,878	0																													0	
1	2020	FMS (+)		563	563	0																													0	
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>7,441</b>	<b>7,441</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
1	2021	AF		2,462	1,847	615	205	205	205																										0	
1	2022	AF		998	0	998	-	-	-	84	84	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	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						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2		<b>P-1 Line Item Number / Title:</b> SDB000 / Small Diameter Bomb
<b>Item Number / Title [DODIC]:</b> Small Diameter Bomb		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Boeing - St Louis MO	1,000	5,000	8,000	0	0	0	0	0	0	14	14	28

**Remarks:**  
 FY18 deliveries in December 2020 are a result of remaining FY18 funding being obligated with Lot 15 contract award in September 2020.  
 FY20 deliveries in May-August 2021 are a result of FY20 funding being obligated on the Lot 15 contract. Remaining FY20 deliveries are on the Lot 16 contract.  
 FY20 deliveries in January 2023 are a result of remaining FY20 funding being obligated with Lot 17 contract award in November 2021  
 SDB I - As a result of contractor facilitization, SDB I maximum production capacity increased from 5,000 to 8,000 weapons (includes USAF and FMS quantities).  
 (‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 (‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** SDB002 / SMALL DIAMETER BOMB II

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207327F **Other Related Program Elements:** 0207327F

**Line Item MDAP/MAIS Code:** 439

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 ( <i>Units in Each</i> )	510	727	743	985	-	985	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	110.771	183.279	209.972	294.649	-	294.649	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	110.771	183.279	209.972	294.649	-	294.649	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>110.771</b>	<b>183.279</b>	<b>209.972</b>	<b>294.649</b>	<b>-</b>	<b>294.649</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	0.121	0.134	0.137	0.181	-	0.181	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	0.217	0.252	0.283	0.299	-	0.299	-	-	-	-	-	-

**Description:**

GBU-53/B: Small Diameter Bomb Increment II (SDB II) StormBreaker is a joint interest United States Air Force (USAF) and Department of Navy (DoN) ACAT IC program, with the USAF as the lead service. SDB II addresses the following war-fighter requirements: attack moving and stationary targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and provides a network-enabled weapon capability via Link-16 and Ultra High Frequency (UHF) weapon data link. The threshold aircraft for the USAF is the F-15E, and the threshold aircraft for the DoN are the F-35B and F-35C. Objective aircraft include the F-22, F-16, F-35A, B-2, A-10, MQ-9, B-1, B-52, AC-130 and the F/A-18E/F. SDB II is compatible with the Bomb Rack Unit-61 (BRU-61) miniature munitions carriage, Bomb Rack Unit-55 (BRU-55), Type II carriage systems, the CNU-660/E carriage system, the Common Munitions Built In Test (BIT)/Reprogramming Equipment (CMBRE), and the Joint Mission Planning System (JMPS). SDB II will develop and field a single weapon storage container (USAF) and a dual weapon storage container (DoN). SDB II is a key component of the Air Force Global Strike Task Force CONOPs.

SDB II completed a competitive Risk Reduction in October 2009 and entered Milestone B Engineering and Manufacturing Development (EMD) in August 2010. A Fixed Price Incentive Firm EMD contract with five options for annual (FY 2015-FY 2019) Low Rate Initial Production (LRIP) lots was awarded in August 2010. SDB II received Milestone C approval to enter LRIP in June 2015 and completed an Acquisition Program Baseline update. Contract options for LRIP Lots 1-5 have been exercised. Initial Operational Test and Evaluation (IOT&E) started June 2018 and completed May 2019. SDB II was fielded for F-15E in September 2020. Early Operational Capability (EOC) on the DoN's F-35B is scheduled for FY 2022 and IOC for F-35B/C is scheduled for FY 2024; and is based on the F-35 B/C hardware and software modification schedule and completion of Multi-Service Operational Test and Evaluation (MOT&E) Phase II. DoN's first production lot (Lot 4) supports F/A-18E/F IOC.

Total planned SDB II procurement is 17,000 weapons; 12,000 for the USAF and 5,000 for the DoN. SDB II total procurement costs in this document only include 10,724 USAF weapons, weapon containers, trainers, reliability captive/test vehicles, tactical to guided test vehicle conversions for Air Combat Command's Weapon System Evaluation Program (WSEP), and SDB II product support. The remaining 1,276 USAF weapons were procured in BP20 SDB000. Funds may also be used for non-recurring engineering, integration, test, qualification, production readiness and operational readiness of engineering change proposals to resolve safety, reliability or other operational deficiencies, decrease weapon system cost, preserve future production capabilities and capacities, and meet Congressional, National Agency and Defense Department mandates. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. DMS issues resolved through studies, bridge buys, life-of-type buys, supplier/parts replacement, re-designs and re-qualification.

In 2019, the SDB II program office completed its annual Program Office Estimate (POE) and the updated Average Procurement Unit Cost (APUC) of 174K (BY15) and Program Acquisition Unit Cost (PAUC) of 283K (BY15) exceeded the current baseline (Milestone C) estimates of 140K (BY15) and 236K (BY15) by 24 and 20 percent, respectively; resulting in a breach of the Nunn-McCurdy significant cost growth threshold. The updated APUC and PAUC remain 8 and 3 percent below the original baseline estimates of 190K (BY15) and 290K (BY15), respectively. The breach occurred after Lot 2 production actual cost data and additional performance requirements were incorporated into the POE. The current baseline estimate, and subsequent APB established at Milestone C, assumed cost reductions due to anticipated

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical		<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207327F	<b>Other Related Program Elements:</b> 0207327F
<b>Line Item MDAP/MAIS Code:</b> 439		
<p>quantity growth, which did not materialize. As a result, Lot 2 actual cost data showed increases in subsystem unit costs. Additionally, the program received requirements after Milestone C to incorporate Military-Code (M-Code) Global Positioning System (GPS), cryptographic modernization, and exportability features, requiring hardware upgrades that increase unit cost.</p> <p>The FY 2022 funding request was reduced by 14.201 million to account for the availability of prior year execution balances.</p> <p>Reference BP20 SDB000 for SDB II FY18 and prior years.</p> <p>Funding for this exhibit contained in PE 0207327F.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:** 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 2: Tactical **P-1 Line Item Number / Title:** SDB002 / SMALL DIAMETER BOMB II

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207327F **Other Related Program Elements:** 0207327F

**Line Item MDAP/MAIS Code:** 439

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	SMALL DIAMETER BOMB II	P-5a, P-21	B		510 / 110.771	727 / 183.279	743 / 209.972	985 / 294.649	- / -	985 / 294.649
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>510 / 110.771</b>	<b>727 / 183.279</b>	<b>743 / 209.972</b>	<b>985 / 294.649</b>	<b>- / -</b>	<b>985 / 294.649</b>

\*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 received Congressional Marks of 60.9M for All-Up-Round unit cost adjustment, and 2.4M for container unit cost growth; totaling 63.3M.

The FY 2022 budget request includes funding for SDB II weapons, weapon containers, test equipment, training equipment required for weapon handling and maintenance, software maintenance, tactical to guided test vehicle conversions for WSEP, test assets and support for reliability testing, product support, integration and testing of changes to the product baseline to meet Congressional, National Agency or Defense Department mandates, and required DMSMS / cost reduction Non-Recurring Engineering (NRE), integration and testing. Training equipment includes Practical Explosive Ordinance Disposal System Trainers (PEST), Weapon Load Crew Trainers (WLCT) and Conventional Maintenance Munitions Trainers (CMMT). FY 2022 funding supports the sole source Lot 8 production contract which includes an option for Lot 9 weapons. The Lot 8 contract and Lot 9 option are inclusive of both USAF and DoN production quantities. SDB II FY 2022 quantity is 985 weapons.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.

Reference BP20 SDB000 for SDB II FY18 and prior years. SDB II total procurement costs in this document only include 10,724 USAF weapons, the remaining 1,276 USAF weapons were procured in BP20 SDB000.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity (Units in Each)	510	727	743	985	-	985
Gross/Weapon System Cost (\$ in Millions)	110.771	183.279	209.972	294.649	-	294.649
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	110.771	183.279	209.972	294.649	-	294.649
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>110.771</b>	<b>183.279</b>	<b>209.972</b>	<b>294.649</b>	<b>-</b>	<b>294.649</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.217	0.252	0.283	0.299	-	0.299

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway - Small Diameter Bomb II Cost</b>																		
Recurring Cost																		
SDB Increment II All Up Round Weapon <sup>(†)</sup>	0.103	510	52.549	0.204	727	148.653	0.199	743	147.857	0.218	985	214.887	-	-	-	0.218	985	214.887
Weapon Containers	-	-	1.630	-	-	3.614	-	-	4.248	-	-	8.451	-	-	-	-	-	8.451
Test Vehicle	-	-	7.432	-	-	5.132	-	-	3.048	-	-	3.130	-	-	-	-	-	3.130
<i>Subtotal: Recurring Cost</i>	-	-	61.611	-	-	157.399	-	-	155.153	-	-	226.468	-	-	-	-	-	226.468
<i>Subtotal: Flyaway - Small Diameter Bomb II Cost</i>	-	-	61.611	-	-	157.399	-	-	155.153	-	-	226.468	-	-	-	-	-	226.468
<b>Support - Small Diameter Bomb II Cost</b>																		
Training Equipment	-	-	0.089	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Operational Flight Program Updates & Test	-	-	10.743	-	-	6.283	-	-	16.947	-	-	12.866	-	-	-	-	-	12.866
Logistics Support	-	-	1.070	-	-	1.189	-	-	1.233	-	-	1.254	-	-	-	-	-	1.254
Production Testing	-	-	2.349	-	-	2.586	-	-	22.875	-	-	22.100	-	-	-	-	-	22.100
PMA Contractor Services	-	-	3.742	-	-	5.570	-	-	4.097	-	-	4.099	-	-	-	-	-	4.099
PMA Other Government Costs	-	-	1.163	-	-	0.898	-	-	0.917	-	-	0.934	-	-	-	-	-	0.934
Product Support/Obsolescence	-	-	30.004	-	-	9.354	-	-	8.750	-	-	26.928	-	-	-	-	-	26.928
<i>Subtotal: Support - Small Diameter Bomb II Cost</i>	-	-	49.160	-	-	25.880	-	-	54.819	-	-	68.181	-	-	-	-	-	68.181
<b>Gross/Weapon System Cost</b>	<b>0.217</b>	<b>510</b>	<b>110.771</b>	<b>0.252</b>	<b>727</b>	<b>183.279</b>	<b>0.283</b>	<b>743</b>	<b>209.972</b>	<b>0.299</b>	<b>985</b>	<b>294.649</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.299</b>	<b>985</b>	<b>294.649</b>



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> PMA Other Government Costs: Travel, Government Purchase card (GPC), and Central Support Product Support/Obsolescence: DMSMS Activities, Interim Contractor Support (Raytheon), Encryption Chips, Cost Reduction and Shipping  Increase in FY22 funding supports obsolescence activities and to ensure ongoing weapon production. In previous fiscal years, Obsolescence was included in Product Support and SDB II All Up Round weapon costs. It has been broken out for transparency.  Reference BP20 SDB000 for SDB II FY18 and prior years. SDB II total procurement costs in this document only include 10,724 USAF weapons, the remaining 1,276 USAF weapons were procured in BP20 SDB000.  (t) indicates the presence of a P-5a		

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDB Increment II All Up Round Weapon <sup>(†)</sup>		2019	Raytheon / Tucson AZ	SS / FFP	AFLCMC/PK Eglin AFB, FL	Dec 2018	Jun 2021	510	0.120	N	Aug 2018	Oct 2009
SDB Increment II All Up Round Weapon <sup>(†)</sup>		2020	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Oct 2020	Mar 2022	727	0.204	N	Aug 2019	Oct 2018
SDB Increment II All Up Round Weapon <sup>(†)</sup>		2021	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Apr 2021	Apr 2023	743	0.199	N	Aug 2020	Oct 2019
SDB Increment II All Up Round Weapon <sup>(†)</sup>		2022	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2022	Apr 2024	985	0.218	N	Aug 2021	Oct 2020

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

**Remarks:**

1. SDB II Lots 1-5 are options on the current EMD contract with Raytheon Missile Systems, Tucson, AZ, which was competitively awarded in August 2010. SDB II specifications for Lot 1-5 are defined in the EMD contract.
2. SDB II Lots 4-5 (FY 2018-FY 2019) are Firm Fixed Price contracts.
3. SDB II Lot 6 (FY 2020) awarded as Fixed Price Incentive Firm contract.
4. SDB II Lot 7 (FY 2021) to be negotiated as Fixed Price Incentive Firm contract.
5. SDB II unit cost increased from Lot 5 (FY2019) to Lot 6 (FY2020) following the Nunn-McCurdy significant unit cost breach, a decrease in expected Navy quantities, and Lot 6 being the first sole source negotiated lot. An update to Lot 6 unit cost and quantities will be provided once the contract is awarded.

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019														Fiscal Year 2020														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
SDB Increment II All Up Round Weapon																																			
	1	2019	AF	510	0	510			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510						
	1	2019	NAVY (+)	750	0	750			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	750						
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>1,260</b>	<b>0</b>	<b>1,260</b>			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>1,260</b>						
	1	2020	AF	727	0	727																						727							
	1	2020	NAVY (+)	461	0	461																						461							
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>1,188</b>	<b>0</b>	<b>1,188</b>																						<b>1,188</b>							
	1	2021	AF	743	0	743																						743							
	1	2021	NAVY (+)	357	0	357																						357							
	<b>1</b>	<b>2021</b>	<b>Total</b>	<b>1,100</b>	<b>0</b>	<b>1,100</b>																						<b>1,100</b>							
	1	2022	AF	985	0	985																						985							
	1	2022	NAVY (+)	364	0	364																						364							
	<b>1</b>	<b>2022</b>	<b>Total</b>	<b>1,349</b>	<b>0</b>	<b>1,349</b>																						<b>1,349</b>							
									O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021														Fiscal Year 2022												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 0	BAL D U E A S O F 1 O C T	Calendar Year 2021														Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
SDB Increment II All Up Round Weapon																																	
1	2019	AF		510	0	510	-	-	-	-	-	-	-	-	57	57	57	57	57	57	57	57	54								0		
1	2019	NAVY (‡)		750	0	750	-	-	-	-	-	-	-	-	84	84	84	84	84	84	84	84	78								0		
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>1,260</b>	<b>0</b>	<b>1,260</b>	-	-	-	-	-	-	-	-	<b>141</b>	<b>141</b>	<b>141</b>	<b>141</b>	<b>141</b>	<b>141</b>	<b>141</b>	<b>141</b>	<b>132</b>	-	-	-	-	-	-	-	<b>0</b>		
1	2020	AF		727	0	727	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	61	61	61	61	61	61	300			
1	2020	NAVY (‡)		461	0	461	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	38	38	38	38	38	38	195			
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>1,188</b>	<b>0</b>	<b>1,188</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>495</b>			
1	2021	AF		743	0	743								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	743			
1	2021	NAVY (‡)		357	0	357								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	357			
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>1,100</b>	<b>0</b>	<b>1,100</b>								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>1,100</b>			
1	2022	AF		985	0	985																								985			
1	2022	NAVY (‡)		364	0	364																								364			
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>1,349</b>	<b>0</b>	<b>1,349</b>																								<b>1,349</b>			
							O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
SDB Increment II All Up Round Weapon																																	
1	2019	AF		510	510	0																							0				
1	2019	NAVY (‡)		750	750	0																							0				
<b>1</b>	<b>2019</b>	<b>Total</b>		<b>1,260</b>	<b>1,260</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2020	AF		727	427	300	60	60	60	60	60																		0				
1	2020	NAVY (‡)		461	266	195	39	39	39	39	39																		0				
<b>1</b>	<b>2020</b>	<b>Total</b>		<b>1,188</b>	<b>693</b>	<b>495</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2021	AF		743	0	743	-	-	-	-	-	62	62	62	62	62	62	62	62	62	62	62	61						0				
1	2021	NAVY (‡)		357	0	357	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	27						0				
<b>1</b>	<b>2021</b>	<b>Total</b>		<b>1,100</b>	<b>0</b>	<b>1,100</b>	-	-	-	-	-	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>88</b>	-	-	-	-	-	-	<b>0</b>				
1	2022	AF		985	0	985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	82	82	82	82	82	492				
1	2022	NAVY (‡)		364	0	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	31	31	31	31	31	178				
<b>1</b>	<b>2022</b>	<b>Total</b>		<b>1,349</b>	<b>0</b>	<b>1,349</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>114</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>670</b>				
							O C T	N O V	D E C	J A N	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			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2025												Fiscal Year 2026												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025												Calendar Year 2026												
							O C T	N O V	D E C	J A N	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
SDB Increment II All Up Round Weapon																															
	1	2019	AF	510	510	0																							0		
	1	2019	NAVY (+)	750	750	0																							0		
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>1,260</b>	<b>1,260</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
	1	2020	AF	727	727	0																							0		
	1	2020	NAVY (+)	461	461	0																							0		
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>1,188</b>	<b>1,188</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
	1	2021	AF	743	743	0																							0		
	1	2021	NAVY (+)	357	357	0																							0		
	<b>1</b>	<b>2021</b>	<b>Total</b>	<b>1,100</b>	<b>1,100</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
	1	2022	AF	985	493	492	82	82	82	82	82																		0		
	1	2022	NAVY (+)	364	186	178	31	31	31	31	23																	0			
	<b>1</b>	<b>2022</b>	<b>Total</b>	<b>1,349</b>	<b>679</b>	<b>670</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>105</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
							O C T	N O V	D E C	J A N	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	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2022 Air Force	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 02 / 2	<b>P-1 Line Item Number / Title:</b> SDB002 / SMALL DIAMETER BOMB II	<b>Item Number / Title [DODIC]:</b> SMALL DIAMETER BOMB II
---	---	---

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2022	1-8-5 For 2022	MAX For 2022	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Raytheon - Tucson AZ	1,140	1,925	2,119	0	0	0	0	0	0	6	25	31

**Remarks:**

SDB II - Annual production for the program's first four LRIP quantity buys may be below the Minimum Sustainment Rate (MSR) due to the MSR being applicable to Lot 5 and out.  
 SDB II - Quantity adjustments from previous PB submissions starting in FY2021 are reflective of an increased unit cost following the Nunn-McCurdy significant unit cost breach and subsequent APB adjusted unit cost; these quantities may fall below MSR due to the program operating as buy-to-budget.

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

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

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

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 5: Industrial Facilities	<b>P-1 Line Item Number / Title:</b> 000042 / Industr'l Preparedns/Pol Prevention
---	--

<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
--	---	--

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.801	0.814	0.757	-	0.757	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.801	0.814	0.757	-	0.757	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.801</b>	<b>0.814</b>	<b>0.757</b>	-	<b>0.757</b>	-	-	-	-	-	-

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

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

**Description:**

The Air Force Industrial Preparedness program element combines the resources of several appropriations (Aircraft Procurement, Missile Procurement, and Operation and Maintenance) to create a comprehensive program that aids in ensuring the defense industry can supply reliable, safe, affordable systems to operational commanders.

The Missile Procurement part of Industrial Preparedness supports the management and upkeep of Air Force Plant 44, Tucson, AZ. This includes capital type rehabilitation (MPC 3000) projects for repair and expansion, major capital rehabilitation, construction, demolition, equipment, property appraisals and energy conservation; and environmental compliance (MPC 7000) efforts to ensure compliance with federal, state and local regulatory requirements. The environmental compliance program includes efforts to enhance compliance through pollution prevention reducing controlled emissions and use of hazardous materials. Air Force Plant 44 is the backbone of Department of Defense (DoD) weapon systems assembly and maintenance supporting Storm Breaker, AMRAAM, Javelin, Griffin, Phalanx, Sidewinder, Standard Missiles, Stinger, Tomahawk, and numerous other weapon system. Funds are also provided within this appropriation to assess space-related industrial base concerns (MPC 6000).

Funding for this exhibit is contained in PE 78011F

**Justification:**

FY2022 funds environmental compliance (MPC 7000) and capital type rehabilitation (MPC 3000) programs, at Air Force Plant 44, a unique defense asset which supports the production of several missile systems for the Air Force and the Navy. Also includes space-related industrial base assessments (MPC 6000).

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV	<b>P-1 Line Item Number / Title:</b> 21SPEC / Spectrum Funds
---	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
--	---	--

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.003	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.003	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.003</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

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

**Description:**  
No text provided.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV

**P-1 Line Item Number / Title:**  
M30FLH / ICBM FUZE MOD

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604933F **Other Related Program Elements:** 0604933F

**Line Item MDAP/MAIS Code:** 498

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	51.619	5.000	0.000	57.113	-	57.113	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	0.000	0.000	4.100	-	4.100	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	51.619	5.000	0.000	53.013	-	53.013	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	4.100	14.497	43.450	47.757	-	47.757	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>55.719</b>	<b>19.497</b>	<b>43.450</b>	<b>100.770</b>	-	<b>100.770</b>	-	-	-	-	-	-

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

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

**Description:**

Prior year funding includes 18.4M which was executed in PE 0101213F, M30MLG, MM III Modifications. Funding for this exhibit contained in PE 010328F.

The ICBM Fuze Modernization program will replace the current Mk21/W87-0 fuze to meet warfighter requirements to support both Minuteman III (MM III) and Ground Based Strategic Deterrent (GBSD). The new fuze will be a form, fit, and functionally equivalent replacement for the legacy Mk21/W87-0 and will provide a 20-year threshold, 30-year objective design life. The program will support the current force of 400 deployed and 50 non-deployed ICBMs.

The program will provide needed ICBM weapon system modifications, system testing, support/test equipment, data and training required to accommodate, field, and support the new Mk21 fuze along with the W87-0 warhead as defined in the Air Force Global Strike Command (AFGSC) Requirements Traceability Memo dated 2 December 2013. In addition, the Joint Requirements Oversight Council (JROC) signed the program's JROC Memorandum validating the operational requirement for the program on 6 December 2016. Currently available Mk21/W87-0 fuze quantities do not meet United States Strategic Command (USSTRATCOM) requirements and the legacy fuze is three times beyond its original ten year design life. A replacement Mk21/W87-0 fuze is urgently required to meet warfighter requirements and to ensure operational capability. ICBM Fuze Modernization will procure 724 Mk21/W87-0 operationally-configured replacement fuzes. Fuze quantities have increased from 781 to 812 to align the total quantities reflected with the procurement needs of the program. The additional units include the destructive production testing units required to verify operational integrity throughout the production cycle. 693 fuzes will be delivered to the Air Force and 31 will be consumed in destructive production testing. Fuzes will be delivered and placed in supply for installation by organizational/intermediate maintenance on a schedule to be determined by USSTRATCOM and AFGSC.

The ICBM Fuze Modernization program was re-baselined in Fiscal Year (FY) 2020. As a part of the re-baseline an updated Service Cost Position (SCP) was completed in July 2020 which provided more specific insight to lead times and costs associated with the ICBM Fuze Modernization production cycle. The SCP utilized pre-production cost data received from the production agency, Kansas City National Security Campus, to inform a higher fidelity breakout between advance procurement and other weapon system procurement requirements. Previous budget submissions underestimated the advance procurement requirements for the first two production lots. To address the advance procurement limitations of previous budget submissions and to align with the new program schedule, the production quantity procurement profile was updated and procurement quantities were shifted into future years. The production agency has been able to mitigate impacts from limited advance procurement funding for the first two lots and the program is able to fully fund and execute the Fiscal Year 2022 procurement quantities. The Fiscal Year 2022 advance procurement request has been updated to support the re-baselined production schedule.

Due to the differences between the Department of Energy and the Department of Defense acquisition processes, the program has decoupled Milestone C from Phase 6.5 and Full Rate Production from Phase 6.6. The program is forecasted to complete a Milestone C decision in 4QFY2021 and a Full Rate Production Decision in 2QFY2024.

UNCLASSIFIED

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV		<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604933F	<b>Other Related Program Elements:</b> 0604933F
<b>Line Item MDAP/MAIS Code:</b> 498		

Life of Program Buy

The ICBM Fuze Modernization program will procure Application Specific Integrated Circuit (ASIC), Heterojunction Bipolar Transistor (HBT), and power source components produced by the National Nuclear Security Administration's (NNSA) Sandia Production facility as a Life of Program Buy (LOPB) in FY2022. The NNSA Office of Stockpile Management (NA-12) procurement strategy for the ICBM Fuze Modernization program is structured to ensure the production schedule requirements are met and to avoid impacting the W80-4 LEP, and W87-1 Modification program schedules. The NNSA requires DoD funding that is in alignment with the planned production runs in order to meet NNSA's production commitments. This is the only viable approach given there is neither component availability nor process capacity on any other schedule.

Purchasing components in a single production run or lot to support joint production activities is required to manage capacity and resource conflicts in the production workload within NNSA. NNSA has a large number of current and pending modernization activities necessitating careful planning and coordination among related programs that rely on the same vendors, components, and plant production space. Funding and building these components as a Life of Program Buy (LOPB) is critical to maintaining production line availability and schedule for the Mk21 ICBM Fuze Modernization, W88 Alt 370, B61-12 LEP, W87-1 Modification, and W80-4 LEP programs.

Long Lead Production

The ICBM Fuze Modernization program continues to require advance procurement authority in FY2022 to procure long lead items (Model XI sensor hardware, Thermal Protection Device (TPD) connectors, cable assemblies, connector assemblies, and Commercial Off-the-Shelf (COTS) components for the Radar Module, Pathlength Module (PLM), Missile Interface & Controller Module (MICM), Firing Set Interface Module (FSIM), and Launch Safety Device Assembly (LSDA)). Advance procurement needs increased due to a better understanding of the materials required in advance to align with actual quantities procured. Failure to procure the parts will result in delayed fuze production and fielding activities.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV

**P-1 Line Item Number / Title:**  
M30FLH / ICBM FUZE MOD

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604933F **Other Related Program Elements:** 0604933F

**Line Item MDAP/MAIS Code:** 498

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	5915 / ICBM Fuze Modernization (Service Life Extension)		B		- / 51.619	- / 5.000	- / 0.000	- / 57.113	- / 0.000	- / 57.113
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 51.619</b>	<b>- / 5.000</b>	<b>- / 0.000</b>	<b>- / 57.113</b>	<b>- / -</b>	<b>- / 57.113</b>

\*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:**  
Where applicable, justification for individual modification is provided in the P-3A exhibits.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD	<b>Modification Number / Title:</b> 5915 / ICBM Fuze Modernization

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	51.619	5.000	0.000	57.113	0.000	57.113
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	4.100	-	4.100
Net Procurement (P-1) ( <i>\$ in Millions</i> )	51.619	5.000	0.000	53.013	0.000	53.013
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	4.100	14.497	43.450	47.757	-	47.757
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>55.719</b>	<b>19.497</b>	<b>43.450</b>	<b>100.770</b>	<b>0.000</b>	<b>100.770</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Program Overview

The ICBM Fuze Modernization program will replace the current Mk21/W87-0 fuze to meet warfighter requirements to support both MM III and GBSD. The new fuze will be a form, fit, and functionally equivalent replacement for the legacy Mk21/W87-0 fuze and will provide a 20-year threshold, 30-year objective design life. The program will support the current force of 400 deployed and 50 non-deployed ICBMs. The program will provide needed MM III weapon system modifications, system testing, support/test equipment, data and training required to accommodate, field, and support the new Mk21 fuze along with the W87-0 warhead as defined in the AFGSC Requirements Traceability Memo dated 2 December 2013. In addition, the JROC signed the program's JROC Memorandum validating the operational requirement for the program on 6 December 2016. Currently available Mk21/W87-0 fuze quantities do not meet United States Strategic Command (USSTRATCOM) requirements and the legacy fuze is three times beyond its original ten year design life. A replacement Mk21/W87-0 fuze is urgently required to meet warfighter requirements and to ensure operational capability. ICBM Fuze Modernization will procure 724 Mk21/W87-0 operationally-configured replacement fuzes. Fuze quantities have increased from 781 to 812 to align the total quantities reflected with the procurement needs of the program. The additional units include the destructive production testing units required to verify operational integrity throughout the production cycle. 693 fuzes will be delivered to the Air Force and 31 will be consumed in destructive production testing. Fuzes will be delivered and placed in supply for installation by organizational/intermediate maintenance on a schedule to be determined by USSTRATCOM and AFGSC.

The ICBM Fuze Modernization program was re-baselined in FY2020. As a part of the re-baseline an updated Service Cost Position (SCP) was completed in July 2020 which provided more specific insight to lead times and costs associated with the ICBM Fuze Modernization production cycle. The SCP utilized pre-production cost data received from the production agency, Kansas City National Security Campus, to inform a higher fidelity breakout between advance procurement and other weapon system procurement requirements. Previous budget submissions underestimated the advance procurement requirements for the first two production lots. To address the advance procurement limitations of previous budget submissions and to align with the new program schedule, the production quantity procurement profile was updated and procurement quantities were shifted into future years. The production agency has been able to mitigate impacts from limited advance procurement funding for the first two lots and the program is able to fully fund and execute the Fiscal Year 2022 procurement quantities. The Fiscal Year 2022 advance procurement request has been updated to support the re-baselined production schedule.

Due to the differences between the Department of Energy and the Department of Defense acquisition processes, the program has decoupled Milestone C from Phase 6.5 and Full Rate Production from Phase 6.6. The program is forecasted to complete a Milestone C decision in 4QFY2021 and a Full Rate Production Decision in 2QFY2024.

Life of Program Buy

The ICBM Fuze Modernization program will procure Application Specific Integrated Circuit (ASIC), Heterojunction Bipolar Transistor (HBT), and power source components produced by the National Nuclear Security Administration's (NNSA) Sandia Production facility as a Life of Program Buy (LOPB) in FY2022. The NNSA Office of Stockpile Management (NA-12) procurement strategy for the ICBM Fuze Modernization program is structured to ensure the production schedule requirements are met and to avoid impacting the W80-4 LEP, and W87-1 Modification program schedules. The NNSA requires DoD funding that is in alignment with the planned production runs in order to meet NNSA's production commitments. This is the only viable approach given there is neither component availability nor process capacity on any other schedule.



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD	<b>Modification Number / Title:</b> 5915 / ICBM Fuze Modernization
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
<p>Purchasing components in a single production run or lot to support joint production activities is required to manage capacity and resource conflicts in the production workload within NNSA. NNSA has a large number of current and pending modernization activities necessitating careful planning and coordination among related programs that rely on the same vendors, components, and plant production space. Funding and building these components as a Life of Program Buy (LOPB) is critical to maintaining production line availability and schedule for the Mk21 ICBM Fuze Modernization, W88 Alt 370, B61-12 LEP, W87-1 Modification, and W80-4 LEP programs.</p> <p>Prior Years funding includes Life of Type Buy (LOTB) procurements to affordably acquire qualified COTS parts for use during and after exposure to nuclear environments and to ensure commonality between the Air Force and the Navy. LOTB was executed jointly with the Navy to provide a pool of interchangeable, qualified, and certified parts for each service's fuze. Procured parts will be delivered to the National Nuclear Security Administration, Kansas City National Security Campus for use in producing common component modules for the Air Force and Navy fuzes. Some component modules will be entirely interchangeable between the Services while others will have interchangeable sub-assemblies.</p> <p>Milestone/Development Status</p> <p>The program entered Phase 6.3 Developmental Engineering in FY2013 and completed in FY2019. The first flight test was performed in FY2019 and the second flight test was performed in FY2020. Phase 6.4 Production Engineering will be completed in FY2024. The program will enter Phase 6.5 First Production in FY2024. Research, Development, Test and Evaluation (RDT&amp;E) is contained in Program Element 0604933F. The program is tailored to use the joint Department of Defense - Department of Energy Phase 6.X processes for routine nuclear stockpile activities to align with Navy and NNSA operations.</p>		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1			<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD		<b>Modification Number / Title:</b> 5915 / ICBM Fuze Modernization	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> LGM-30G		<b>Modification Type:</b> Service Life Extension		<b>Related RDT&amp;E PEs:</b> 0604933F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0604933F	46 / 846.095	- / 155.476	- / 156.693	27 / 117.109	- / -	27 / 117.109
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> ICBM Fuze						
B Kits						
Recurring						
ICBM Fuze:EQUIPMENT Group B (Active)	- / 0.000	- / 5.000	- / -	40 / 49.864	- / -	40 / 49.864
<i>Subtotal: Recurring</i>	- / 0.000	- / 5.000	- / -	- / 49.864	- / -	- / 49.864
<i>Subtotal: ICBM Fuze</i>	- / 0.000	- / 5.000	- / -	- / 49.864	- / -	- / 49.864
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 5.000	- / -	- / 49.864	- / -	- / 49.864
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 51.619	- / -	- / -	- / -	- / -	- / -
Change Orders	- / -	- / -	- / -	- / 2.191	- / -	- / 2.191
SIM/TRAINER	- / -	- / -	- / -	- / 2.970	- / -	- / 2.970
OTHER GOVT	- / -	- / -	- / -	- / 2.088	- / -	- / 2.088
<i>Subtotal: Support</i>	- / 51.619	- / -	- / -	- / 7.249	- / -	- / 7.249
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>51.619</b>	<b>5.000</b>	<b>0.000</b>	<b>57.113</b>	<b>0.000</b>	<b>57.113</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1		<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> ICBM Fuze			
<b>Manufacturer Information</b>			
Manufacturer Name: Kansas City National Security Campus		Manufacturer Location: Kansas City, KS	
Administrative Leadtime ( <i>in Months</i> ): 2		Production Leadtime ( <i>in Months</i> ): 30	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Dec 2021
Delivery Dates			Jun 2024
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 724	

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

<b>Exhibit P-40, Advance Procurement Budget Line Item Justification:</b> PB 2022 Air Force							<b>Date:</b> May 2021					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV							<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD					
<b>Program Elements for Code B Items:</b> 0604933F							<b>Other Related Program Elements:</b> 0604933F					
<b>Line Item MDAP/MAIS Code:</b> 498												

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>To Complete</b>	<b>Total</b>
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	4.100	14.497	43.450	47.757	-	47.757	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	4.100	14.497	43.450	47.757	-	47.757	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>4.100</b>	<b>14.497</b>	<b>43.450</b>	<b>47.757</b>	<b>-</b>	<b>47.757</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Description:**

The ICBM Fuze Modernization program continues to require advance procurement authority in FY2022 to procure long lead items (Model XI sensor hardware, Thermal Protection Device (TPD) connectors, cable assemblies, connector assemblies, and Commercial Off-the-Shelf (COTS) components for the Radar Module, Pathlength Module (PLM), Missile Interface & Controller Module (MICM), Firing Set Interface Module (FSIM), and Launch Safety Device Assembly (LSDA)). Advance procurement needs increased due to a better understanding of the materials required in advance to align with actual quantities procured. Failure to procure the parts will result in delayed fuze production and fielding activities.

ICBM Fuze Modernization program advance procurement is utilized to reduce the required lead time for production assets from time of full funding by 36 months.

The end items for which the long lead items listed on the P-10 will be used to produce are fully funded in the FY2025 budget.

The ICBM Fuze Modernization Program was re-baselined in Fiscal Year 2020. As a part of the re-baseline an updated Service Cost Position (SCP) was completed in July 2020 which provided more specific insight to lead times and costs associated with the ICBM Fuze Modernization production cycle. The SCP utilized pre-production cost data received from the production agency, Kansas City National Security Campus, to inform a higher fidelity breakout between advance procurement and other weapon system procurement requirements. Previous budget submissions underestimated the advance procurement requirements for the first two production lots. To address the advance procurement limitations of previous budget submissions and to align with the new program schedule, the production quantity procurement profile was updated and procurement quantities were shifted into future years. The production agency has been able to mitigate impacts from limited advance procurement funding for the first two lots and the program is able to fully fund and execute the Fiscal Year 2022 procurement quantities. The Fiscal Year 2022 advance procurement request has been updated to support the re-baselined production schedule.

**UNCLASSIFIED**

**Exhibit P-40, Advance Procurement Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV	<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD
--	--

<b>Program Elements for Code B Items:</b> 0604933F	<b>Other Related Program Elements:</b> 0604933F
--	---

**Line Item MDAP/MAIS Code:** 498

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-10	5915 / ICBM Fuze Modernization			- / 4.100	- / 14.497	- / 43.450	- / 47.757	- / -	- / 47.757
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>			<b>- / 4.100</b>	<b>- / 14.497</b>	<b>- / 43.450</b>	<b>- / 47.757</b>	<b>- / -</b>	<b>- / 47.757</b>

\*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:**  
 The ICBM Fuze Modernization program continues to require advance procurement authority in FY2022 to procure long lead items (Model XI sensor hardware, Thermal Protection Device (TPD) connectors, cable assemblies, connector assemblies, and Commercial Off-the-Shelf (COTS) components for the Radar Module, Pathlength Module (PLM), Missile Interface & Controller Module (MICM), Firing Set Interface Module (FSIM), and Launch Safety Device Assembly (LSDA)). Advance procurement needs increased due to a better understanding of the materials required in advance to align with actual quantities procured. Failure to procure the parts will result in delayed fuze production and fielding activities.

**UNCLASSIFIED**

**Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification):** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD	<b>P-3a Number / Title:</b> 5915 / ICBM Fuze Modernization
---	--	---

<b>First System (2022) Award Date:</b> December 2024	<b>First System (2022) Completion Date:</b> June 2027	<b>Interval Between Systems:</b> 0 Months
---	--	--

<b>ICBM Fuze Modernization</b>	<b>Production Leadtime</b> <i>(Months)</i>	<b>Prior Years</b> <i>(Each)</i>	<b>FY 2020</b> <i>(Each)</i>	<b>FY 2021</b> <i>(Each)</i>	<b>FY 2022</b> <i>(Each)</i>
Quantity	30	-	-	-	-

<b>Cost Elements</b>	<b>When Required</b> <i>(Months)</i>	<b>Prior Years</b> <i>(\$ M)</i>	<b>FY 2020</b> <i>(\$ M)</i>	<b>FY 2021</b> <i>(\$ M)</i>	<b>FY 2022</b> <i>(\$ M)</i>
----------------------	---	-------------------------------------	---------------------------------	---------------------------------	---------------------------------

<b>CFE</b>					
ICBM FUZE MOD Hardware: ICBM Fuze Mod Hardware	24	4.100	14.497	43.450	0.000
ICBM FUZE MOD Hardware: Radar COTS	24	-	-	-	1.017
ICBM FUZE MOD Hardware: MICM COTS	24	-	-	-	0.517
ICBM FUZE MOD Hardware: FSIM COTS	24	-	-	-	1.105
ICBM FUZE MOD Hardware: PLM COTS	24	-	-	-	0.080
ICBM FUZE MOD Hardware: Mod XI Sensor Assembly	24	-	-	-	42.329
ICBM FUZE MOD Hardware: TPD Connectors	24	-	-	-	0.179
ICBM FUZE MOD Hardware: LSDA Header Shell and Parts	24	-	-	-	0.973
ICBM FUZE MOD Hardware: Cable Assembly	24	-	-	-	0.831
ICBM FUZE MOD Hardware: Connector and Subassemblies	24	-	-	-	0.295
ICBM FUZE MOD Hardware: Other (Key Number and Misc Items)	24	-	-	-	0.431
<i>Total: CFE</i>		<i>4.100</i>	<i>14.497</i>	<i>43.450</i>	<i>47.757</i>
<b>Total Advance Procurement/Obligation Authority</b>		<b>4.100</b>	<b>14.497</b>	<b>43.450</b>	<b>47.757</b>

**UNCLASSIFIED**

**Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification):** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30FLH / ICBM FUZE MOD	<b>P-3a Number / Title:</b> 5915 / ICBM Fuze Modernization
---	--	---

Cost Elements	QPA <i>(Each)</i>	FY 2022					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2022 Qty <i>(Each)</i>	For FY	
<b>CFE</b>							
ICBM FUZE MOD Hardware: ICBM Fuze Mod Hardware	-						0.000
ICBM FUZE MOD Hardware: Radar COTS	1	32	0.010	Jan 2024	104		1.017
ICBM FUZE MOD Hardware: MICM COTS	1	33	0.005	Dec 2023	104		0.517
ICBM FUZE MOD Hardware: FSIM COTS	1	31	0.011	Feb 2024	104		1.105
ICBM FUZE MOD Hardware: PLM COTS	1	30	0.001	Mar 2024	104		0.080
ICBM FUZE MOD Hardware: Mod XI Sensor Assembly	1	53	0.407	Apr 2022	104		42.329
ICBM FUZE MOD Hardware: TPD Connectors	1	27	0.002	Jun 2024	104		0.179
ICBM FUZE MOD Hardware: LSDA Header Shell and Parts	1	30	0.009	Mar 2024	104		0.973
ICBM FUZE MOD Hardware: Cable Assembly	1	36	0.008	Sep 2023	104		0.831
ICBM FUZE MOD Hardware: Connector and Subassemblies	1	25	0.003	Aug 2024	104		0.295
ICBM FUZE MOD Hardware: Other (Key Number and Misc Items)	1	36	0.004	Sep 2023	104		0.431
<i>Total: CFE</i>							<b>47.757</b>
<b>Total Advance Procurement/Obligation Authority</b>							<b>47.757</b>

**Description:**  
 The ICBM Fuze Modernization program continues to require advance procurement authority in FY2022 to procure long lead items (Model XI sensor hardware, Thermal Protection Device (TPD) connectors, cable assemblies, connector assemblies, and Commercial Off-the-Shelf (COTS) components for the Radar Module, Pathlength Module (PLM), Missile Interface & Controller Module (MICM), Firing Set Interface Module (FSIM), and Launch Safety Device Assembly (LSDA)). Advance procurement needs increased due to a better understanding of the materials required in advance to align with actual quantities procured. Failure to procure the parts will result in delayed fuze production and fielding activities.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles /  
 BSA 1: Class IV **P-1 Line Item Number / Title:**  
 M30MLG / MM III Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101213F **Other Related Program Elements:** 0101213F, 0303131F

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	271.275	49.705	81.137	88.579	-	88.579	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	271.275	49.705	81.137	88.579	-	88.579	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>271.275</b>	<b>49.705</b>	<b>81.137</b>	<b>88.579</b>	-	<b>88.579</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	0.338	6.865	4.947	-	4.947	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to the LGM-30, Minuteman III (MM III) Intercontinental Ballistic Missile (ICBM) weapon system. The MM III is a strategic missile capable of delivering special weapons against a wide range of targets. The purpose of the modifications budgeted in FY22 is to support the operational capability of the Minuteman III ICBM through fielding of GBSD. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

The modifications being performed on LGM-30 include: Minuteman Minimum Essential Emergency Communications Network (MEECN) modification, LGM-30G Launch Control Center Block Upgrade (LCCBU), LGM-30G Arm/Disarm Switch Replacement (ADSR), LGM-30G Low Cost Modifications (LCM), LGM-30G Fast Rising B-Plug Service Life Extension (FRBP SLEP), LGM-30G ICBM Cryptography Upgrade II (ICU II), LGM-30G Automatic Switching Unit (ASU), and LGM-30G Remote Visual Assessment II (RVA II).

RDT&E funding for modifications other than MEECN is contained in PE 0101213F (PE 0604851F prior to FY15); MEECN is contained in PE 0303131F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV

**P-1 Line Item Number / Title:**  
M30MLG / MM III Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101213F **Other Related Program Elements:** 0101213F, 0303131F

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	5910 / MINUTEMAN MEECN MODIFICATION (Capability Improvement)				- / 129.384	- / -	- / -	- / 2.674	- / -	- / 2.674
P-40a***	5921 / MM LCC Block Upgrades (Service Life Extension)				- / 2.311	- / 14.943	- / 26.627	- / 2.136	- / -	- / 2.136
P-40a***	5928 / T-9 Launch Facility Trainer Conversion (T-9) (Other)				- / 33.286	- / 2.230	- / 1.801	- / -	- / -	- / -
P-40a***	5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB) (Other)				- / 0.226	- / -	- / -	- / -	- / -	- / -
P-40a***	5947 / A/D Switch Replacement (Reliability & Maintainability)				- / -	- / -	- / -	- / 4.534	- / -	- / 4.534
P-40a***	5948 / CMPT upgrade (Other)				- / -	- / 0.258	- / -	- / -	- / -	- / -
P-40a***	5949 / Fast Rising B-Plug Service Extension Program (FRBP SLEP) (Service Life Extension)				- / 0.000	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Other)				- / 12.140	- / 0.542	- / 0.160	- / 4.899	- / -	- / 4.899
P-3a	5916 / ICBM Cryptography Upgrade Increment II (Capability Improvement)		A		- / 90.281	- / 26.288	- / 33.337	- / 10.782	- / 0.000	- / 10.782
P-3a	5925 / MM III Auto Switching Unit (ASU) (Service Life Extension)		A		- / 0.247	- / 1.025	- / 1.791	- / 8.964	- / 0.000	- / 8.964
P-3a	5932 / LGM-30G Remote Visual Assessment Phase II (RVA II) (Other)		B		- / 3.400	- / 4.419	- / 17.421	- / 54.590	- / 0.000	- / 54.590
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 271.275</b>	<b>- / 49.705</b>	<b>- / 81.137</b>	<b>- / 88.579</b>	<b>- / -</b>	<b>- / 88.579</b>

\*\*\* Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

\*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:**  
This program, P-3A Mod 5910, MINUTEMAN MEECN MODIFICATION, is a new start.  
This program, P-3A Mod 5947, A/D Switch Replacement, is a new start.

Where applicable, justification for individual modifications is provided in the P-3A exhibits.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	<b>Modification Number / Title:</b> 5916 / ICBM Cryptography Upgrade Increment II

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	90.281	26.288	33.337	10.782	0.000	10.782
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	90.281	26.288	33.337	10.782	0.000	10.782
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>90.281</b>	<b>26.288</b>	<b>33.337</b>	<b>10.782</b>	<b>0.000</b>	<b>10.782</b>

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

Initial Spares ( <i>\$ in Millions</i> )	14.478	-	1.936	3.794	-	3.794
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

LGM-30G MM Crypto Mods / ICBM Cryptography Upgrade II (ICU II) procures and fields upgraded A4 Drawers that implement KS-60 Remote Key/Code Change (RCC), Irreversible Transformation (IT) and Continuous Signal Lockout (CSLO) capabilities that increases code security and prevents widespread loss of status monitoring. Cryptography modifications will increase security during code changes by reducing the frequency of open sites by 75 days annually while reducing associated labor costs.

**Milestone/Development Status**

ICU II Engineering & Manufacturing Development for A4 Drawer concluded 2QFY2020.

**Key production activities include:**

- ICU II Milestone C: Aug 18
- ICU II Production Unfinalized Contract Action: Oct 18
- ICU II Production Finalization and Contract Award: Aug 19
- ICU II Production and Deployment Phase: 1QFY2019 - 2QFY2024
- ICU II Required Assets Available (RAA) Initial Operational Capability (IOC): 3QFY2022
- ICU II Required Assets Available (RAA) Full Operational Capability (FOC): 2QFY2024

ICU II installation will be performed by operational forces beginning in FY22 as part of routine key and code change activities.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	<b>Modification Number / Title:</b> 5916 / ICBM Cryptography Upgrade Increment II

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Models of Systems Affected:</b> LGM-30G	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0101213F
--	--	--

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> A4 Drawer Replacement						
B Kits						
Recurring						
A4 Drawer Replacement:EQUIPMENT Group B (Active)	167 / 76.845	59 / 21.222	231 / 15.410	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 76.845	- / 21.222	- / 15.410	- / -	- / -	- / -
<i>Subtotal: A4 Drawer Replacement</i>	- / 76.845	- / 21.222	- / 15.410	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 76.845	- / 21.222	- / 15.410	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 17.378	- / 10.590	- / -	- / -	- / -	- / -
OTHER GOVT	- / 3.768	- / 2.767	- / 6.150	- / 3.650	- / -	- / 3.650
Change Orders	- / -	- / 0.086	- / 4.238	- / 3.643	- / -	- / 3.643
SUPPORT-EQUIP	- / -	- / -	- / 4.615	- / -	- / -	- / -
A&AS	- / 12.243	- / 10.033	- / 11.443	- / 11.519	- / -	- / 11.519
PMA - Other Gov't Costs	- / 10.047	- / 11.590	- / 11.481	- / 11.970	- / -	- / 11.970
<i>Subtotal: Support</i>	- / 13.436	- / 5.066	- / 17.927	- / 10.782	- / -	- / 10.782
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>90.281</b>	<b>26.288</b>	<b>33.337</b>	<b>10.782</b>	<b>0.000</b>	<b>10.782</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1		<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	
		<b>Modification Number / Title:</b> 5916 / ICBM Cryptography Upgrade Increment II	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> A4 Drawer Replacement			
<b>Manufacturer Information</b>			
Manufacturer Name: The Boeing Company		Manufacturer Location: Heath, OH	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 26	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Oct 2019	Oct 2020	
Delivery Dates	Dec 2021	Dec 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 457	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
---	-----------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	<b>Modification Number / Title:</b> 5925 / MM III Auto Switching Unit (ASU)
---	---	--

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.247	1.025	1.791	8.964	0.000	8.964
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.247	1.025	1.791	8.964	0.000	8.964
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.247</b>	<b>1.025</b>	<b>1.791</b>	<b>8.964</b>	<b>0.000</b>	<b>8.964</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	0.379	-	0.379
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The ASU Program will replace the obsolete Automatic Switching Unit, Diesel Electric Unit, and Minuteman Power Processor with modern commercial off-the-shelf components to improve reliability and supportability. All Launch Facilities and Missile Alert Facilities at Minot, AFB and Malmstrom, AFB will be impacted by the ASU program. The ASU program will also modify Minuteman trainers and facilities at Vandenberg. The new equipment is expected to have a design life of 10 years and will replace equipment that has exceeded its original design life.

ASU has been de-scoped by Air Force Global Strike Command and will not be installing at FE Warren.

**Milestone/Development Status**

Key production activities include:

ASU Milestone C: May 19

Production and Deployment Phase: 4QFY2021 - 4QFY2025.

ASU RAA: Sep 2025

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1			<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications			<b>Modification Number / Title:</b> 5925 / MM III Auto Switching Unit (ASU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> LGM-30G		<b>Modification Type:</b> Service Life Extension			<b>Related RDT&amp;E PEs:</b> 0101213F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Auto Switching Unit							
B Kits							
Recurring							
Auto Switching Unit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	40 / 7.224	- / -	40 / 7.224	
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 7.224</i>	<i>- / -</i>	<i>- / 7.224</i>	
<i>Subtotal: Auto Switching Unit</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 7.224</i>	<i>- / -</i>	<i>- / 7.224</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 7.224</i>	<i>- / -</i>	<i>- / 7.224</i>	
<b>Support (All Modification Items)</b>							
PMA - Other Gov't Costs	- / -	- / -	- / 0.764	- / 1.102	- / -	- / 1.102	
OTHER GOVT	- / -	- / 0.500	- / 0.492	- / -	- / -	- / -	
A&AS	- / 0.247	- / 0.525	- / 0.535	- / 0.638	- / -	- / 0.638	
<i>Subtotal: Support</i>	<i>- / 0.247</i>	<i>- / 1.025</i>	<i>- / 1.791</i>	<i>- / 1.740</i>	<i>- / -</i>	<i>- / 1.740</i>	
<b>Installation</b>							
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.247</b>	<b>1.025</b>	<b>1.791</b>	<b>8.964</b>	<b>0.000</b>	<b>8.964</b>	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1				<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications				<b>Modification Number / Title:</b> 5925 / MM III Auto Switching Unit (ASU)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> Auto Switching Unit													
<b>Manufacturer Information</b>													
Manufacturer Name: Northrop Grumman							Manufacturer Location: Ogden, UT						
Administrative Leadtime (in Months): 0							Production Leadtime (in Months): 3						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates										Feb 2022			
Delivery Dates										May 2022			
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contract Field Team													
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	-	-	-	-	-	-
Out	0	-	-	-	-	-	-	-	-	-	-	-	-



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	<b>Modification Number / Title:</b> 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3.400	4.419	17.421	54.590	0.000	54.590
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	3.400	4.419	17.421	54.590	0.000	54.590
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>3.400</b>	<b>4.419</b>	<b>17.421</b>	<b>54.590</b>	<b>0.000</b>	<b>54.590</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	0.000	0.756	0.774	-	0.774
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

RVA II will provide enhanced situational awareness by providing the current remote camera feed to responding security vehicles and helicopters. RVA II will also increase backup power time to current remote visual equipment, increase video archival storage, and implement auto-activation of outer and inner zone alarms [Improved Minuteman Physical Security System (IMPSS) alarm]. RVA II will also implement changes required to meet DoD Cyber Security requirements.

The RVA system consists of real-time video surveillance, display, and data transmission elements. During an intrusion, this system works in conjunction with the existing nuclear-certified intrusion detection system to report LF assessment information to monitoring locations.

**Milestone/Development Status**

- RVA EMD: 2QFY2017-1QFY2020
- RVA II PDR: Oct 17
- RVA II CDR: Feb 19
- RVA II Milestone C: Dec 19
- Production and Deployment: 4QFY2020-4QFY2023
- RVA II IOC: Aug 21
- RVA II FOC: Jul 23

EMD contract awarded in FY17 and completed in 1QFY20.

First lot (1 squadron) will be installed at Malmstrom AFB. These units will be used for completing OT&E and then declared operational and turned over to the wing for daily use. OT&E testing associated with this effort and units themselves will be paid for with procurement funds.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1			<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications		<b>Modification Number / Title:</b> 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> LGM-30G		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0101213F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101213F	- / 11.345	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> RVA II						
B Kits						
Recurring						
RVA II: EQUIPMENT Group B (Active)	- / 2.884	- / 4.162	2 / 2.279	7 / 23.512	- / -	7 / 23.512
<i>Subtotal: Recurring</i>	- / 2.884	- / 4.162	- / 2.279	- / 23.512	- / -	- / 23.512
<i>Subtotal: RVA II</i>	- / 2.884	- / 4.162	- / 2.279	- / 23.512	- / -	- / 23.512
<i>Subtotal: Procurement, All Modification Items</i>	- / 2.884	- / 4.162	- / 2.279	- / 23.512	- / -	- / 23.512
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / 0.516	- / 0.257	- / 1.833	- / 2.013	- / -	- / 2.013
<i>Subtotal: Support</i>	- / 0.516	- / 0.257	- / 1.833	- / 2.013	- / -	- / 2.013
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> RVA II	- / -	- / -	2 / 13.309	7 / 29.065	- / -	7 / 29.065
<i>Subtotal: Installation</i>	- / -	- / -	2 / 13.309	7 / 29.065	- / -	7 / 29.065
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>3.400</b>	<b>4.419</b>	<b>17.421</b>	<b>54.590</b>	<b>0.000</b>	<b>54.590</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> M30MLG / MM III Modifications	<b>Modification Number / Title:</b> 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** RVA II

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Ogden, UT
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 6

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Feb 2021	Nov 2021
Delivery Dates		Aug 2021	May 2022

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	2 / 13.309	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	7 / 29.065	- / -	7 / 29.065
Total	- / -	- / -	2 / 13.309	7 / 29.065	- / -	7 / 29.065

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	-	-	-	-	2	-	-	3	4
Out	0	-	-	-	-	-	-	-	-	-	1	-	1

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV	<b>P-1 Line Item Number / Title:</b> M65DAG / AGM-65D Maverick
---	---

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	71.081	0.294	0.298	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	71.081	0.294	0.298	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>71.081</b>	<b>0.294</b>	<b>0.298</b>	<b>0.000</b>	<b>-</b>	<b>0.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

AGM-65L is the Air Force Laser Maverick missile that aids in striking moving targets traveling at high velocities with proven accuracy and low collateral damage. The missile is a modification of inventory baseline Maverick missiles. The AGM-65L Maverick missiles replaced electro-optical TV seeker components with new Semi-Active Laser (SAL) components. The AGM-65A/B Guidance Control System (GCS) is modified to Laser which is the "L" variant. For the backend, the AGM-65G Center Aft Section (CAS) mates with the laser GCS for a tactical All-up Round (AUR) laser missile. The modification program is with Raytheon Missiles and Defense (RMD). Additional baseline Maverick missiles will be modified to Laser Maverick missiles with accrued Foreign Military Sales (FMS) exchange credits. Funding also covers the movement of Maverick GCS units (AGM-65A/B/G) between the McAlester Army Ammunition Plant & Raytheon Missile Systems (Tucson, AZ). The older Maverick GCS units are upgraded/modified to Laser Maverick seekers.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding for this exhibit contained in PE 0207313F.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S Code Section 2308 BUY-TO-BUDGET ACQUISITION.

**Justification:**

No FY2022 funding requested.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)
---	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0101122F	<b>Other Related Program Elements:</b> 0101122F
--	--	---

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	144.147	68.513	52.924	46.799	-	46.799	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	144.147	68.513	52.924	46.799	-	46.799	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>144.147</b>	<b>68.513</b>	<b>52.924</b>	<b>46.799</b>	-	<b>46.799</b>	-	-	-	-	-	-

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

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

**Description:**

The AGM-86B, Air Launched Cruise Missile (ALCM), is a subsonic, air-to-surface strategic nuclear missile, operational since 1982. Armed with a W80 warhead, it is designed to evade air and ground-based defenses in order to strike targets at any location within any enemy's territory. ALCM was designed for both B-52H internal and external carriage. Funding for this exhibit is contained in PE 0101122F.

**Change Summary:**

All modification programs have been adjusted to reflect the calendar year 2000 program estimates (POE). POEs are based on a combination of actuals, proposals, rough order of magnitude estimates from contractors, and subject matter expert inputs.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 03: Modification of Inservice Missiles / BSA 1: Class IV

**P-1 Line Item Number / Title:**  
MALCBG / Air Launch Cruise Missile (ALCM)

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101122F **Other Related Program Elements:** 0101122F

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	_0468 / AGM-86B Low Cost Mods (Other)				- / 1.798	- / 0.298	- / 0.100	- / 0.100	- / -	- / 0.100
P-40a***	860011 / Support Equipment (Reliability & Maintainability)				- / 0.190	- / 19.691	- / 9.658	- / 4.986	- / -	- / 4.986
P-40a***	860101 / AGM-86B Service Life Extension Program 1 (Service Life Extension)				- / 9.613	- / 0.894	- / 3.588	- / 3.648	- / -	- / 3.648
P-40a***	860103 / Warhead Arming Device (WAD) (Service Life Extension)				- / 7.501	- / 0.006	- / 0.009	- / 0.010	- / -	- / 0.010
P-40a***	860105 / Guided Missile Flight Controller (GMFC) (Reliability & Maintainability)				- / 1.386	- / 0.009	- / 3.660	- / 4.200	- / -	- / 4.200
P-40a***	860106 / W-10 Cable (Service Life Extension)				- / 0.646	- / 0.644	- / 0.749	- / 0.371	- / -	- / 0.371
P-40a***	860107 / Fuze Assembly (Service Life Extension)				- / 0.000	- / 3.178	- / 4.591	- / 4.711	- / -	- / 4.711
P-40a***	860109 / Flight Data Transmitter (Service Life Extension)				- / -	- / -	- / -	- / 3.400	- / -	- / 3.400
P-3a	860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit (Capability Improvement)		B		- / 109.537	- / 10.433	- / 13.654	- / 10.898	- / 0.000	- / 10.898
P-3a	860104 / Rotary Switch (RS) (Reliability & Maintainability)		B		- / 13.476	- / 8.262	- / 6.090	- / 6.260	- / 0.000	- / 6.260
P-3a	860108 / Inertial Navigation Element (INE) (Reliability & Maintainability)		B		- / 0.000	- / 25.098	- / 10.825	- / 8.215	- / 0.000	- / 8.215
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 144.147</b>	<b>- / 68.513</b>	<b>- / 52.924</b>	<b>- / 46.799</b>	<b>- / -</b>	<b>- / 46.799</b>

\*\*\* Although this is an Exhibit P-40a item, the actual exhibit is not included since all of the required information for this item is already being shown here.

\*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:**  
This program, P-3A Mod 860109, Flight Data Transmitter, is a new start.

INE completed development and began re-manufacture production in FY-2020



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	109.537	10.433	13.654	10.898	0.000	10.898
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	109.537	10.433	13.654	10.898	0.000	10.898
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>109.537</b>	<b>10.433</b>	<b>13.654</b>	<b>10.898</b>	<b>0.000</b>	<b>10.898</b>

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

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

**Description:**

This program reflects the procurement of Conventional/Air Launched Cruise Missile (CALCM/ALCM) Test Instrumentation Kits (CATIK). CATIKs provide telemetry, tracking, flight termination, and battery power to support missile flight testing while meeting Range Safety Standards. A complete CATIK unit consists of payload doors, a GPS receiver, telemetry transmitter, signal multiplexer, Flight Termination Receiver (FTR), exploding bridge wire (EBW), various wiring harnesses, a battery set (defined below), an encryption/decryption unit (EU/DU), and other generic hardware components. The CATIK is required for flight testing and critical to collecting data for the Nuclear Weapon System Evaluation Program. On average, six CATIKs are consumed each year to support flight tests. This number may fluctuate based on flight test requirements.

Battery sets are procured on the same contract as the CATIK. A set of batteries consists of a Flight Termination Receiver (FTR) battery and a separate battery for the telemetry instrumentation. Battery sets have a two year lead time from receipt of order and are limited to a seven year shelf life. CATIK batteries are represented in the "SUPPORT-EQUIP" line.

The current activity will also procure modified CATIK components and associated equipment to support integration of new Encryption/Decryption chips. The National Security Agency (NSA) is phasing out the old Encryption/Decryption chips due to crypto modernization. To ensure continued support of the ALCM, the Missile Sustainment Division has acquired a waiver from NSA which supports the continued use of current chips out to a future classified date. This modification was initiated with an Aug 2014 award to Boeing for EU/DU replacement. Encryption Equipment is procured along with CATIK but not on a one-for-one basis (the number of Encryption chips procured in a given year varies).

Three factors contributed to the cost increase in FY20. The restarting of the CATIK line, upgraded common core unit, and upgraded flight termination receiver.

Schedule delays related to the manufacture of new components have caused delivery delays for CATIKs purchased with FY16, FY17, and FY18 funds. Deliveries should be back on schedule by the time CATIKs purchased in FY20 deliver in 2023.

The total objective for the current CATIK production contract is 63 CATIKs and 63 Battery sets. 24 CATIKs and 12 Battery sets have been procured on the Basic and Option 1 (prior years), Option 2 (FY19) was for 12 Battery sets only, Option 3 is for 13 CATIKs(FY2020), Options 4 is for 14 CATIKs and 12 Battery sets in FY2021, Option 5 is for 12 CATIKs in FY2022, and Option 6 (FY2023) is for 27 Battery sets only.

CATIK funds will continue to support AFGSC and USSTRATCOM requirements to keep the ALCM viable through 2030.

Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Milestone/Development Status

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>

CATIK Enterprise effort consists of CATIK units, Encryption units, Battery Sets, and Decryption units to support flight tests through FY28.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Models of Systems Affected:</b> AGM-86B	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0101122F
--	--	--

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> CATIKS						
B Kits						
Recurring						
CATIKS:EQUIPMENT Group B (Active)	115 / 82.200	13 / 6.930	14 / 12.360	12 / 10.885	- / -	12 / 10.885
<i>Subtotal: Recurring</i>	- / 82.200	- / 6.930	- / 12.360	- / 10.885	- / -	- / 10.885
<i>Subtotal: CATIKS</i>	- / 82.200	- / 6.930	- / 12.360	- / 10.885	- / -	- / 10.885
<i>Subtotal: Procurement, All Modification Items</i>	- / 82.200	- / 6.930	- / 12.360	- / 10.885	- / -	- / 10.885
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 1.767	- / -	- / -	- / -	- / -	- / -
PMA - Other Gov't Costs	0 / 0.085	- / 3.503	- / 0.013	0 / 0.013	- / -	0 / 0.013
Change Orders	0 / 2.786	- / -	- / -	- / -	- / -	- / -
Data	0 / 1.691	- / -	- / -	- / -	- / -	- / -
OTHER GOVT	0 / 1.761	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	150 / 19.247	- / -	12 / 1.281	- / -	- / -	- / -
<i>Subtotal: Support</i>	150 / 27.337	- / 3.503	12 / 1.294	0 / 0.013	- / -	0 / 0.013
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>109.537</b>	<b>10.433</b>	<b>13.654</b>	<b>10.898</b>	<b>0.000</b>	<b>10.898</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1		<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	
		<b>Modification Number / Title:</b> 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> CATIKS			
<b>Manufacturer Information</b>			
Manufacturer Name: Boeing Company		Manufacturer Location: Oklahoma City, OK	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 30	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Sep 2020	Jun 2021	Jun 2022
Delivery Dates	Mar 2023	Dec 2023	Dec 2024
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 168	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860104 / Rotary Switch (RS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	13.476	8.262	6.090	6.260	0.000	6.260
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	13.476	8.262	6.090	6.260	0.000	6.260
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>13.476</b>	<b>8.262</b>	<b>6.090</b>	<b>6.260</b>	<b>0.000</b>	<b>6.260</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

In FY19, the program segregated the AGM-86B Service Life Extension Program (SLEP-2) components Guided Missile Flight Controller (GFMC), Rotary Switch (RS), and Warhead Arming Device (WAD) into separate efforts. Some of the hardware installations documented under Rotary Switch are for hardware procured under SLEP-2. Ref AGM-86B Service Life Extension Program (SLEP-2) modification number 860002 for information prior to FY19.

AF Long Range Planning required the service life of the ALCM to be extended through 2030. In order to satisfy the life extension requirement, several phases of the service Life Extension program (SLEP) were implemented as a proactive approach. Through studies and surveillance and analysis programs, various components were identified as candidates for replacement due to aging and obsolescence issues before they become fleet-wide problems. This modification executes a remanufacture of the RS. The RS kit will be issued via a Time Compliance Technical Order (TCTO). The remanufactured RS will be available for installation at Hill AFB, Analytical Condition Inspection (ACI) at an annual rate of 24 kits. The RS TCTO kit will also be available to the organizational-level maintenance units for installation at a rate of 70 per year in conjunction with scheduled maintenance activities. This effort is critical to meet Air Force Global Strike Command (AFGSC) and United States Strategic Command (USSTRATCOM) operational needs. Installations are expected to occur FY21-FY27.

The total objective for the Rotary Switch remanufacture will be 542 units at an estimated unit cost of 76,000 each or total cost of 41.3 million. 282 units have been procured in prior years, 94 units are included in the budget year leaving 166 units to be procured in subsequent years

Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

This modification supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D

SLEP funds will continue to support AFGSC and USSTRATCOM requirements to keep the ALCM viable through 2030.

**Milestone/Development Status**

Engineering studies and analysis programs identified SLEP components for replacement due to aging and obsolescence issues. Solutions to these aging and obsolescence issues were identified through engineering studies conducted by the Original Equipment Manufacturer.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1			<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)		<b>Modification Number / Title:</b> 860104 / Rotary Switch (RS)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> AGM-86B		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b> 0101122F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 2: Rotary Switch-Depot</b>						
B Kits						
Recurring						
Rotary Switch-Depot:EQUIPMENT Group B (Active)	48 / 3.142	24 / 1.940	24 / 1.456	24 / 1.499	- / -	24 / 1.499
<b>Subtotal: Recurring</b>	- / 3.142	- / 1.940	- / 1.456	- / 1.499	- / -	- / 1.499
<b>Subtotal: Rotary Switch-Depot</b>	- / 3.142	- / 1.940	- / 1.456	- / 1.499	- / -	- / 1.499
<b>Modification Item 2 of 2: Rotary Switch-Org/ Intermediate</b>						
B Kits						
Recurring						
Rotary Switch-Org/Intermediate:EQUIPMENT Group B (Active)	140 / 9.164	70 / 5.229	70 / 4.234	70 / 4.341	- / -	70 / 4.341
<b>Subtotal: Recurring</b>	- / 9.164	- / 5.229	- / 4.234	- / 4.341	- / -	- / 4.341
<b>Subtotal: Rotary Switch-Org/Intermediate</b>	- / 9.164	- / 5.229	- / 4.234	- / 4.341	- / -	- / 4.341
<b>Subtotal: Procurement, All Modification Items</b>	- / 12.306	- / 7.169	- / 5.690	- / 5.840	- / -	- / 5.840
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -
PMA - Other Gov't Costs	- / 0.063	- / 0.004	- / 0.030	- / 0.030	- / -	- / 0.030
A&AS	- / 1.107	- / 1.089	- / 0.360	- / 0.380	- / -	- / 0.380
<b>Subtotal: Support</b>	- / 1.170	- / 1.093	- / 0.390	- / 0.410	- / -	- / 0.410
<b>Installation</b>						
<b>Modification Item 1 of 2: Rotary Switch-Depot</b>						
Subtotal: Installation						
	- / -	- / -	18 / 0.010	24 / 0.010	- / -	24 / 0.010
<b>Subtotal: Installation</b>	- / -	- / -	18 / 0.010	24 / 0.010	- / -	24 / 0.010
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>13.476</b>	<b>8.262</b>	<b>6.090</b>	<b>6.260</b>	<b>0.000</b>	<b>6.260</b>

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860104 / Rotary Switch (RS)
---	---	--

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 2:** Rotary Switch-Depot

**Manufacturer Information**

Manufacturer Name: Boeing Guidance and Repair Center (BGRC)	Manufacturer Location: Heath, OH
---	----------------------------------

Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 25
--	-------------------------------------

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Oct 2020	Oct 2020	Oct 2021
Delivery Dates	Nov 2022	Nov 2022	Nov 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	18 / 0.010	24 / 0.010	- / -	24 / 0.010
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	18 / 0.010	24 / 0.010	- / -	24 / 0.010

**Installation Schedule**

PYS	Q1	FY 2020				FY 2021				FY 2022			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	6	6	6	6	6	6	6	6
Out	0	-	-	-	-	6	6	6	6	6	6	6	6

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1		<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	
<b>Modification Number / Title:</b> 860104 / Rotary Switch (RS)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> Rotary Switch-Org/Intermediate			
<b>Manufacturer Information</b>			
Manufacturer Name: Boeing Guidance and Repair Center (BGRC)		Manufacturer Location: Heath, OH	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 28	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Oct 2019	Oct 2020	Oct 2021
Delivery Dates	Feb 2022	Feb 2023	Feb 2024
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 398	



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860108 / Inertial Navigation Element (INE)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	25.098	10.825	8.215	0.000	8.215
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	25.098	10.825	8.215	0.000	8.215
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>0.000</b>	<b>25.098</b>	<b>10.825</b>	<b>8.215</b>	<b>0.000</b>	<b>8.215</b>

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

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

**Description:**

AF Long Range Planning required the service life of the ALCM to be extended through 2030. In order to satisfy the life extension requirement, several phases of the Service Life Extension Program (SLEP) were implemented, a proactive approach. Through studies and surveillance and analysis programs, various components were identified as candidates for replacement due to aging and obsolescence issues before they become fleet-wide problems. This effort produces working engineering samples to verify and certify viability of manufacturing methodology. Verification will be established through scientific methods and analysis of testing results. Testing may include destructive methods. A total of 40 INE kits will be delivered each year until a total 550 have been delivered. Up to 24 SLEP INE kits per year will be delivered to the depot for installation in conjunction with Analytical Condition Inspection (ACI) missiles. The remaining units kits will be delivered to the organizational-level maintenance units for installation via Time Compliance Technical Order (TCTO) in conjunction with scheduled maintenance activities.

This program is currently in Phase II to include delivery of working engineering samples, certification of production, and production of INE's equal to the function and reliability of "like new" devices. The remanufacture contract has been awarded to shorten the asset availability date and ensure procurement of complete usable end items.

This effort is critical to meet Air Force Global Strike Command (AFGSC) and United States Strategic Command (USSTRATCOM) operational needs. Installations are planned to begin in FY22.

Funds may be used to address emerging and short notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

SLEP funds will continue to support AFGSC and USSTRATCOM requirements to keep the ALCM viable through the 2030's.

Due to DMSMS and obsolescence concerns the INE remanufacture Statement of Work (SOW) requires configuration control requirements. This may drive the contractor to purchase all material up front to avoid any DMSMS or obsolescence issues.

This modification supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

Milestone/Development Status

FY20 begins production of INEs.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1			<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)		<b>Modification Number / Title:</b> 860108 / Inertial Navigation Element (INE)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> AGM-86B		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b> 0101122F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101122F	- / 4.875	- / 2.000	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 2:</b> INE - Depot						
B Kits						
Recurring						
INE - Depot:EQUIPMENT Group B (Active)	- / -	24 / 14.261	24 / 3.304	24 / 2.339	- / -	24 / 2.339
<i>Subtotal: Recurring</i>	- / -	- / 14.261	- / 3.304	- / 2.339	- / -	- / 2.339
<i>Subtotal: INE - Depot</i>	- / -	- / 14.261	- / 3.304	- / 2.339	- / -	- / 2.339
<b>Modification Item 2 of 2:</b> INE - org / intermediate						
B Kits						
Recurring						
INE - org / intermediate:EQUIPMENT Group B (Active)	- / -	16 / 9.508	16 / 2.202	16 / 1.559	- / -	16 / 1.559
<i>Subtotal: Recurring</i>	- / -	- / 9.508	- / 2.202	- / 1.559	- / -	- / 1.559
<i>Subtotal: INE - org / intermediate</i>	- / -	- / 9.508	- / 2.202	- / 1.559	- / -	- / 1.559
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 23.769	- / 5.506	- / 3.898	- / -	- / 3.898
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / -	- / 1.302	- / 0.934	- / 0.958	- / -	- / 0.958
PMA - Other Gov't Costs	- / -	- / 0.027	- / 4.385	- / 3.357	- / -	- / 3.357
<i>Subtotal: Support</i>	- / -	- / 1.329	- / 5.319	- / 4.315	- / -	- / 4.315
<b>Installation</b>						
<b>Modification Item 1 of 2:</b> INE - Depot	- / -	- / -	- / -	12 / 0.002	- / -	12 / 0.002
<i>Subtotal: Installation</i>	- / -	- / -	- / -	12 / 0.002	- / -	12 / 0.002
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>25.098</b>	<b>10.825</b>	<b>8.215</b>	<b>0.000</b>	<b>8.215</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1	<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	<b>Modification Number / Title:</b> 860108 / Inertial Navigation Element (INE)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 2:** INE - Depot

**Manufacturer Information**

Manufacturer Name: Northrop Grumman		Manufacturer Location: Salt Lake City, UT	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 20	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Sep 2020	Oct 2020	Oct 2021
Delivery Dates	May 2022	Jun 2022	Jun 2023

**Installation Information**

**Method of Implementation:** Depot

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	12 / 0.002	- / -	12 / 0.002
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	12 / 0.002	- / -	12 / 0.002

**Installation Schedule**

	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	-	-	-	-	6	6
Out	0	-	-	-	-	-	-	-	-	-	-	6	6

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 03 / 1		<b>P-1 Line Item Number / Title:</b> MALCBG / Air Launch Cruise Missile (ALCM)	
		<b>Modification Number / Title:</b> 860108 / Inertial Navigation Element (INE)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> INE - org / intermediate			
<b>Manufacturer Information</b>			
Manufacturer Name: Northrop Grumman		Manufacturer Location: Salt Lake City, UT	
Administrative Leadtime ( <i>in Months</i> ): 0		Production Leadtime ( <i>in Months</i> ): 20	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Sep 2020	Oct 2020	Oct 2021
Delivery Dates	May 2022	Jun 2022	Jun 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 214	

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3020F: Missile Procurement, Air Force / BA 04: Spares and Repair Parts / BSA 10: Missile Spares and Repair Parts

**P-1 Line Item Number / Title:**  
 00098A / Msl Sprs/Repair Parts (Initial)

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	1.910	13.575	14.212	-	14.212	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	1.910	13.575	14.212	-	14.212	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>1.910</b>	<b>13.575</b>	<b>14.212</b>	-	<b>14.212</b>	-	-	-	-	-	-

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

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

**Description:**

FY22 funding totals include \$4.045M requested for Direct War and/or Enduring Requirements.

The FY22 funding request was reduced by \$0.535M to account for the availability of prior year execution balances.

Missile Initial Spares (Budget Program 26) and Replenishment Spares (Budget Program 25) Program Description: MISSILE INITIAL SPARES (Budget Program 26). Missile Initial Spares are required to fill the initial spare parts pipeline or inventory for all new ballistic and non-ballistic missile systems, including modifications, support equipment, and other production categories. Initial spares include peculiar repairable and consumable components, assemblies, and subassemblies that must be available for issue at all levels of supply in time to support and maintain newly fielded end items.

Initial spares are funded in the two program segments described below.

Working Capital Fund (WCF) Spares. Since FY94 most spares are purchased using obligation authority in the WCF. When the spares are delivered, this central procurement account reimburses the WCF. Types of spares in this program segment are Readiness Spares Packages, New Acquisition Spares, Modification Spares, Support Equipment, Other Production, and Consumables.

Exempt Spares. This program segment finances spares that are not purchased through the WCF. The budget authority is a direct cite on the contract. Types of spares in this program segment are Contractor Logistics Support, Simulators/Trainers, Classified Equipment, and Munitions.

The following Major Defense Acquisition Programs (MDAP) have funding in this line:  
 AMRAAM, 185  
 AIM-9X Blk II, 442  
 JASSM, 555

This program has associated Research Development Test and Evaluation funding in PEs 11120F, 11213F, 27161F, 11122F, and 27163F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
3020F: Missile Procurement, Air Force / BA 04: Spares and Repair Parts / BSA 10: Missile Spares and Repair Parts

**P-1 Line Item Number / Title:**  
00098A / Msl Sprs/Repair Parts (Initial)

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

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-18	Missile Spares/Repair Parts (Initial)			185	- / -	- / 1.910	- / 13.575	- / 14.212	- / 0.000	- / 14.212
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 0.000</b>	<b>- / 1.910</b>	<b>- / 13.575</b>	<b>- / 14.212</b>	<b>- / -</b>	<b>- / 14.212</b>

Title represents the P-18 Title for Spares.

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

**Justification:**

AGM-86 Air Launched Cruise Missile (ALCM): The FY22 ALCM funding request for initial spares supports multiple components for the ALCM. Funding supports initial spares for multiple on-going Service Life Extension Programs (SLEPs) to ensure it remains viable until the Long Range Stand Off (LRSO) missile fields. ALCM SLEP projects include SLEP 1, SLEP 2, SLEP 3 and component SLEPs for the Rotary Switch, Warhead Arming Device, Guided Missile Flight Control, W-10 cable, Fuze Assembly, Linear Actuator, Inertial Navigation Element and the Flight Data Transmitter.

MM III Modifications: The FY22 Missile Initial and Replenishment Spares request funds all Minuteman III spares required to support and maintain the Minuteman III missile system, to include support equipment. Spares support the major sub-systems of the weapon system, comprised of the Re-entry System, Guidance System, Propulsion System, Launch Facility and Launch Control Center. FY22 replenishment spares funding will specifically procure items such as batteries ordnance, cables, antenna kits, telemetry packages, torque motors, and other electronic components supporting weapons system operations and operational test launches. FY22 initial spares will procure initial spares for the ICU II, FT3 and RVA II programs.

Joint Air-Surface Standoff Missile (JASSM): The FY22 JASSM missile initial spares program funds are required to fill the initial spares pipeline. Funding will procure initial spares for the ICU II, FT3, ASU, PADS CEIU and RVA II programs. These parts include items such as cables, telemetry packages, and electronic components to support and maintain fielded end items. There spares meet Air Combat Command's bed-down plans for JASSM.

AIM-9 Sidewinder/AIM-9X: FY22 funding for missile Initial spares program addresses depot level post warranty repairs and procures initial spares for all variants. These spares are essential for repairs that do not have parts available.

**UNCLASSIFIED**

<b>Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 04 / 10		<b>P-1 Line Item Number / Title:</b> 00098A / Msl Sprs/Repair Parts (Initial)			<b>Title:</b> Missile Spares/Repair Parts (Initial)	
<b>End Item Line Item Number / Name [MDAP/MAIS]</b>	<b>Prior Years</b> (\$ M)	<b>FY 2020</b> (\$ M)	<b>FY 2021</b> (\$ M)	<b>FY 2022 Base</b> (\$ M)	<b>FY 2022 OCO</b> (\$ M)	<b>FY 2022 Total</b> (\$ M)
<b>Initial</b>						
BA 04 - Spares and Repair Parts						
M09BA1 / AIM-9 Sidewinder	-	0.256	0.000	0.000	0.000	0.000
MALCBG / Air Launch Cruise Missile (ALCM)	-	0.119	0.328	0.428	0.000	0.428
MAMRA0 / AMRAAM [185]	-	0.529	2.091	3.003	0.000	3.003
JASSM0 / JOINT AIR-SURFACE STANDOFF MISSILE	-	0.434	0.440	0.442	0.000	0.442
M30MLG / MM III MODIFICATIONS	-	0.338	8.855	6.597	0.000	6.597
M09HAI / Sidewinder (AIM-9X)	-	0.234	1.861	3.742	0.000	3.742
<b>Subtotal: Initial</b>	-	<b>1.910</b>	<b>13.575</b>	<b>14.212</b>	<b>0.000</b>	<b>14.212</b>
<b>Total Cost (Initial + Replenishment)</b>	-	<b>1.910</b>	<b>13.575</b>	<b>14.212</b>	<b>0.000</b>	<b>14.212</b>

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3020F: Missile Procurement, Air Force / BA 04: Spares and Repair Parts / BSA 10: Missile Spares and Repair Parts

**P-1 Line Item Number / Title:**  
 00098K / Msl Sprs/Repair Parts (Replen)

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	70.231	84.671	63.547	-	63.547	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	70.231	84.671	63.547	-	63.547	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>70.231</b>	<b>84.671</b>	<b>63.547</b>	-	<b>63.547</b>	-	-	-	-	-	-

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

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

**Description:**

Program Description: MISSILE REPLENISHMENT SPARES (Budget Program 25). The Missile Replenishment Spares program funds all ballistic and non-ballistic missile replenishment spares. The replenishment and repair spare parts are needed to support and maintain ballistic and non-ballistic missile systems. Replenishment spares include such items as rocket motors, cables, telemetry packages, and electronic components. Procurements will include spares with long production lead items.

The FY22 funding request was reduced by \$6.499 million to account for the availability of prior year execution balances.

The following Major Defense Acquisition Programs (MDAP) have funding in this line:

- AMRAAM, 185
- SDB II, 439
- AIM-9X Blk II, 442

This program has associated Research Development Test and Evaluation funding in PEs 11120F, 11213F, 27161F, 11122F, and 27163F.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3020F: Missile Procurement, Air Force / BA 04: Spares and Repair Parts / BSA 10: Missile Spares and Repair Parts **P-1 Line Item Number / Title:**  
 00098K / Msl Sprs/Repair Parts (Replen)

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

**Line Item MDAP/MAIS Code:** N/A

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) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-18	Msl Sprs/Repair Parts (Replen)				- / -	- / 70.231	- / 84.671	- / 63.547	- / 0.000	- / 63.547
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 0.000</b>	<b>- / 70.231</b>	<b>- / 84.671</b>	<b>- / 63.547</b>	<b>- / -</b>	<b>- / 63.547</b>

Title represents the P-18 Title for Spares.

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

**Justification:**  
 AGM-65D Maverick: The FY22 Missile Replenishment Spares program procures telemetry kits for annual reliability testing to ensure inventory health and warfighter readiness. These funds also support limited procurement of obsolete components in launcher assemblies, missile guidance sections and test support equipment essential to maintain the Maverick Weapon System.

Small Diameter Bomb I (SDB I): The FY22 Missile Replenishment Spares program for SDB I supports procurement of flight termination and telemetry kits to convert GBU-39/B's into SDB I Guided Test Vehicles for the Weapon System Evaluation Program (WSEP).

AGM-86 Air Launched Cruise Missile (ALCM): The FY22 ALCM funding request for replenishment spares supports multiple components for the ALCM. The ALCM is well beyond its service life and requires replenishment spares to ensure the weapon can continue to operate.

Minuteman III: The FY22 Missile Replenishment Spares request funds all Minuteman III spares required to support and maintain the Minuteman III Missile system, to include support equipment. Spares support the major sub-systems of the weapons system, comprised of the Re-entry System, Re-entry Vehicle, Guidance System, Propulsion System, Launch Facility and Launch Control Center. FY22 replenishment spares funding will specifically procure items such as batteries, ordnance, cables, antenna kits, telemetry packages, torque motors, and other electronic components supporting weapon system operations and operational test launches.

AIM-9 Sidewinder/AIM-9X: FY22 funding for the Missile Replenishment Spares program funds repairs for CATMs and AURs. These repairs include items such as live and inert batteries, Control Actuation System (CAS), Telemetry Packs, and Inert Measurement Units.

**UNCLASSIFIED**

<b>Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F / 04 / 10		<b>P-1 Line Item Number / Title:</b> 00098K / Msl Sprs/Repair Parts (Replen)			<b>Title:</b> Msl Sprs/Repair Parts (Replen)	
<b>End Item Line Item Number / Name [MDAP/MAIS]</b>	<b>Prior Years</b> <i>(\$ M)</i>	<b>FY 2020</b> <i>(\$ M)</i>	<b>FY 2021</b> <i>(\$ M)</i>	<b>FY 2022 Base</b> <i>(\$ M)</i>	<b>FY 2022 OCO</b> <i>(\$ M)</i>	<b>FY 2022 Total</b> <i>(\$ M)</i>
<b>Replenishment</b>						
BA 04 - Spares and Repair Parts						
M65DAG / AGM-65D Maverick	-	1.575	1.597	0.000	0.000	0.000
MALCBG / AGM-86 Air Launched Cruise Missile (ALCM)	-	2.321	2.356	2.369	0.000	2.369
M88AAG / AGM-88A Tactical AGM Missile (HARM)	-	6.347	8.206	8.164	0.000	8.164
M09BA1 / AIM-9 Sidewinder	-	5.818	5.906	5.854	0.000	5.854
M09HAI / AIM-9X	-	3.725	5.722	5.756	0.000	5.756
M30MLG / LGM-30 MINUTEMAN (MM III)	-	44.785	51.421	31.889	0.000	31.889
MAMRA0 / MAMRA0 - AIM-120 Advanced Medium Range Air to Air Missile (AMRAAM)	-	0.854	0.868	0.873	0.000	0.873
PRDTA2 / Predator Hellfire Missile	-	0.305	0.310	0.313	0.000	0.313
SDB000 / Small Diameter Bomb	-	4.501	8.285	8.329	0.000	8.329
<b>Subtotal: Replenishment</b>	-	<b>70.231</b>	<b>84.671</b>	<b>63.547</b>	<b>0.000</b>	<b>63.547</b>
<b>Total Cost (Initial + Replenishment)</b>	-	<b>70.231</b>	<b>84.671</b>	<b>63.547</b>	<b>0.000</b>	<b>63.547</b>

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 05: Other Support / BSA 1: Space Programs	<b>P-1 Line Item Number / Title:</b> CAADJS / Cancelled Accounts
---	---

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.918	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.918	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>0.918</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

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

**Description:**  
No text provided.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2022 Air Force **Date:** May 2021

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3020F: Missile Procurement, Air Force / BA 05: Other Support / BSA 4: Special Programs	<b>P-1 Line Item Number / Title:</b> MSPPRG / Special Update Programs
---	--

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

**Line Item MDAP/MAIS Code:** N/A

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 ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	136.812	23.501	30.352	-	30.352	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	136.812	23.501	30.352	-	30.352	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>136.812</b>	<b>23.501</b>	<b>30.352</b>	-	<b>30.352</b>	-	-	-	-	-	-

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

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

**Description:**

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

**Justification:**

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED