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**Department of Defense
Fiscal Year (FY) 2021 Budget Estimates**

February 2020



Air Force

Justification Book Volume 1 of 1

Missile Procurement, Air Force

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Air Force • Budget Estimates FY 2021 • Procurement

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Appropriation Language Fiscal Year (FY) 2021 President's Budget 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, \$2,620,189,000, to remain available for obligations until September 30, 2023.

FY 2021 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs (\$223,772,000): Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.
- OCO for Enduring Requirements: OCO for Enduring Requirements are enduring in-theater and in-CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.
- OCO for Base Requirements: OCO for Base Requirements is OCO funding for base budget requirements in support of the National Defense Strategy. The Budget requests these funds in OCO to comply with the base budget defense caps included in the Budget Control Act of 2011.

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Department of the Air Force
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2020

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2019 (Base + OCO) -----	FY 2020 Base Enacted -----	FY 2020 Emergency -----	FY 2020 OCO Enacted -----
01. Ballistic Missiles	13,927	55,888		
02. Other Missiles	1,659,697	1,520,272		201,671
03. Modification of Inservice Missiles	166,151	148,009		
04. Spares and Repair Parts	84,371	74,400		
05. Other Support	1,048,748	777,321		
Total Missile Procurement, Air Force	2,972,894	2,575,890		201,671

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Total Obligational Authority
(Dollars in Thousands)

22 Jan 2020

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2020 Total Enacted (Base+Emerg+ OCO) -----	FY 2021 Base -----	FY 2021 OCO for Base Requirements -----	FY 2021 OCO for Direct War and Enduring Costs -----
01. Ballistic Missiles	55,888	75,012		
02. Other Missiles	1,721,943	1,477,926		223,772
03. Modification of Inservice Missiles	148,009	185,440		
04. Spares and Repair Parts	74,400	94,073		
05. Other Support	777,321	563,966		
Total Missile Procurement, Air Force	2,777,561	2,396,417		223,772

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2021 Total OCO -----	FY 2021 Total (Base + OCO) -----
01. Ballistic Missiles		75,012
02. Other Missiles	223,772	1,701,698
03. Modification of Inservice Missiles		185,440
04. Spares and Repair Parts		94,073
05. Other Support		563,966
Total Missile Procurement, Air Force	223,772	2,620,189

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 Total Obligational Authority
 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ballistic Missiles											

Missile Replacement Equipment - Ballistic											
1	Missile Replacement Eq-Ballistic	A		13,927		55,888					U
Total Ballistic Missiles				13,927		55,888					
Budget Activity 02: Other Missiles											

Tactical											
2	Replac Equip & War Consumables	A				4,500					U
3	Joint Air-To-Ground Munition	A			40	10,000					U
4	Joint Air-Surface Standoff Missile	A	360	602,828	371	462,525			19	20,900	U
5	LRASM0		15	54,385							U
6	Sidewinder (AIM-9X)	A	257	118,253	355	155,289					U
7	AMRAAM	A	187	307,486	220	311,730					U
8	Predator Hellfire Missile	A	3104	265,765	1531	118,860			2328	180,771	U
9	Small Diameter Bomb	A	5743	209,332	7078	273,288					U
10	SMALL DIAMETER BOMB II	B	510	100,861	1175	183,279					U
Industrial Facilities											
11	Industr'l Preparedns/Pol Prevention	A		787		801					U
Total Other Missiles				1,659,697		1,520,272				201,671	

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ballistic Missiles											

Missile Replacement Equipment - Ballistic											
1	Missile Replacement Eq-Ballistic	A		55,888		75,012					U
Total Ballistic Missiles				55,888		75,012					
Budget Activity 02: Other Missiles											

Tactical											
2	Replac Equip & War Consumables	A		4,500		4,495					U
3	Joint Air-To-Ground Munition	A	40	10,000							U
4	Joint Air-Surface Standoff Missile	A	390	483,425	376	475,949			24	30,000	U
5	LRASM0				5	19,800					U
6	Sidewinder (AIM-9X)	A	355	155,289	331	164,769					U
7	AMRAAM	A	220	311,730	414	453,223					U
8	Predator Hellfire Missile	A	3859	299,631	548	40,129			3969	143,420	U
9	Small Diameter Bomb	A	7078	273,288	1179	45,475			1283	50,352	U
10	SMALL DIAMETER BOMB II	B	1175	183,279	1133	273,272					U
Industrial Facilities											
11	Industr'l Preparedns/Pol Prevention	A		801		814					U
Total Other Missiles				1,721,943		1,477,926				223,772	

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
Budget Activity 01: Ballistic Missiles							

Missile Replacement Equipment - Ballistic							
1	Missile Replacement Eq-Ballistic	A			75,012		U
Total Ballistic Missiles					75,012		
Budget Activity 02: Other Missiles							

Tactical							
2	Replac Equip & War Consumables	A			4,495		U
3	Joint Air-To-Ground Munition	A					U
4	Joint Air-Surface Standoff Missile	A	24	30,000	400	505,949	U
5	LRASM0				5	19,800	U
6	Sidewinder (AIM-9X)	A			331	164,769	U
7	AMRAAM	A			414	453,223	U
8	Predator Hellfire Missile	A	3969	143,420	4517	183,549	U
9	Small Diameter Bomb	A	1283	50,352	2462	95,827	U
10	SMALL DIAMETER BOMB II	B			1133	273,272	U
Industrial Facilities							
11	Industr'l Preparedns/Pol Prevention	A				814	U
Total Other Missiles				223,772		1,701,698	

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 03: Modification of Inservice Missiles											

Class IV											
12	Spectrum funds	A		-4							U
13	ICBM FUZE MOD	A		9,841	6	5,000					U
14	ICBM FUZE MOD										
	Advance Procurement (CY)			4,100		14,497					U
	C (FY 2019 for FY 2022) (M)			(4,100)							
	C (FY 2020 for FY 2023) (M)					(14,497)					
	C (FY 2021 for FY 2024) (M)										
15	MM III Modifications	A		100,292		59,705					U
16	AGM-65D Maverick	A		33,890		294					U
17	Air Launch Cruise Missile (ALCM)	A		18,032		68,513					U
Total Modification of Inservice Missiles				166,151		148,009					

Budget Activity 04: Spares and Repair Parts											

Missile Spares and Repair Parts											
18	Msl Sprs/Repair Parts (Initial)	A				1,910					U
19	Msl Sprs/Repair Parts (Replen)	A				72,490					U
20	Replen Spares/Repair Parts	A		84,371							U
Total Spares and Repair Parts				84,371		74,400					

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 03: Modification of Inservice Missiles											

Class IV											
12	Spectrum funds	A									U
13	ICBM FUZE MOD	A	6	5,000	20	3,458					U
14	ICBM FUZE MOD										
	Advance Procurement (CY)			14,497		43,450					U
	C (FY 2019 for FY 2022) (M)										
	C (FY 2020 for FY 2023) (M)			(14,497)							
	C (FY 2021 for FY 2024) (M)					(43,450)					
15	MM III Modifications	A		59,705		85,310					U
16	AGM-65D Maverick	A		294		298					U
17	Air Launch Cruise Missile (ALCM)	A		68,513		52,924					U
				-----		-----					
Total Modification of Inservice Missiles				148,009		185,440					
Budget Activity 04: Spares and Repair Parts											

Missile Spares and Repair Parts											
18	Msl Sprs/Repair Parts (Initial)	A		1,910		9,402					U
19	Msl Sprs/Repair Parts (Replen)	A		72,490		84,671					U
20	Replen Spares/Repair Parts	A									U
				-----		-----					
Total Spares and Repair Parts				74,400		94,073					

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Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
Budget Activity 03: Modification of Inservice Missiles							

Class IV							
12	Spectrum funds	A					U
13	ICBM FUZE MOD	A			20	3,458	U
14	ICBM FUZE MOD						
	Advance Procurement (CY)					43,450	U
	C (FY 2019 for FY 2022) (M)						
	C (FY 2020 for FY 2023) (M)						
	C (FY 2021 for FY 2024) (M)					(43,450)	
15	MM III Modifications	A				85,310	U
16	AGM-65D Maverick	A				298	U
17	Air Launch Cruise Missile (ALCM)	A				52,924	U
Total Modification of Inservice Missiles						185,440	
Budget Activity 04: Spares and Repair Parts							

Missile Spares and Repair Parts							
18	Msl Sprs/Repair Parts (Initial)	A				9,402	U
19	Msl Sprs/Repair Parts (Replen)	A				84,671	U
20	Replen Spares/Repair Parts	A					U
Total Spares and Repair Parts						94,073	

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Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Other Support											

Space Programs											
21	Cancelled Account	A		26							U
Special Programs											
25	Special Update Programs	A		188,539		134,553					U
999	Classified Programs			860,183		642,768					U
Total Other Support				1,048,748		777,321					
Total Missile Procurement, Air Force				2,972,894		2,575,890				201,671	

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Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Other Support											

Space Programs											
21	Cancelled Account	A									U
Special Programs											
25	Special Update Programs	A		134,553		23,501					U
999	Classified Programs			642,768		540,465					U
Total Other Support				777,321		563,966					
Total Missile Procurement, Air Force				2,777,561		2,396,417				223,772	

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22 Jan 2020

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Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
Budget Activity 05: Other Support							

Space Programs							
21	Cancelled Account	A					U
Special Programs							
25	Special Update Programs	A			23,501		U
999	Classified Programs				540,465		U
Total Other Support			-----		-----		
					563,966		
Total Missile Procurement, Air Force			-----		-----		
			223,772		2,620,189		

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
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Appropriation 3020F: Missile Procurement, Air Force

Line #	BA	BSA	Line Item Number	Line Item Title	Page
2	02	02	222000	Replac Equip & War Consumables.....	Volume 1 - 13
3	02	02	JAGM00	Joint Air-To-Ground Munition.....	Volume 1 - 15
4	02	02	JASSM0	Joint Air-Surface Standoff Missile.....	Volume 1 - 17
5	02	02	LRASM0	LRASM0.....	Volume 1 - 29
6	02	02	M09HAI	Sidewinder (AIM-9X).....	Volume 1 - 39
7	02	02	MAMRA0	AMRAAM.....	Volume 1 - 53
8	02	02	PRDTA2	Predator Hellfire Missile.....	Volume 1 - 63
9	02	02	SDB000	Small Diameter Bomb.....	Volume 1 - 73
10	02	02	SDB002	SMALL DIAMETER BOMB II.....	Volume 1 - 83

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11	02	05	000042	Industr'l Preparedns/Pol Prevention.....	Volume 1 - 93

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
13	03	01	M30FLH	ICBM FUZE MOD.....	Volume 1 - 95
14	03	01	M30FLH	ICBM FUZE MOD, Advance Procurement.....	Volume 1 - 101
15	03	01	M30MLG	MM III Modifications.....	Volume 1 - 105
16	03	01	M65DAG	AGM-65D Maverick.....	Volume 1 - 121
17	03	01	MALCBG	Air Launch Cruise Missile (ALCM).....	Volume 1 - 123

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18	04	10	00098A	Missile Spares/Repair Parts (Initial).....	Volume 1 - 147
19	04	10	00098K	Msl Sprs/Repair Parts (Replen).....	Volume 1 - 151

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Appropriation 3020F: Missile Procurement, Air Force

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20	04	10	000999	Replen Spares/Repair Parts.....	Volume 1 - 155

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AMRAAM	MAMRA0	7	02	02.....	Volume 1 - 53
Air Launch Cruise Missile (ALCM)	MALCBG	17	03	01.....	Volume 1 - 123
ICBM FUZE MOD	M30FLH	13	03	01.....	Volume 1 - 95
ICBM FUZE MOD, Advance Procurement	M30FLH	14	03	01.....	Volume 1 - 101
Industr'l Preparedns/Pol Prevention	000042	11	02	05.....	Volume 1 - 93
Joint Air-Surface Standoff Missile	JASSM0	4	02	02.....	Volume 1 - 17
Joint Air-To-Ground Munition	JAGM00	3	02	02.....	Volume 1 - 15
LRASM0	LRASM0	5	02	02.....	Volume 1 - 29
MM III Modifications	M30MLG	15	03	01.....	Volume 1 - 105
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Missile Spares/Repair Parts (Initial)	00098A	18	04	10.....	Volume 1 - 147
Msl Sprs/Repair Parts (Replen)	00098K	19	04	10.....	Volume 1 - 151
Predator Hellfire Missile	PRDTA2	8	02	02.....	Volume 1 - 63
Replac Equip & War Consumables	222000	2	02	02.....	Volume 1 - 13
Replen Spares/Repair Parts	000999	20	04	10.....	Volume 1 - 155
SMALL DIAMETER BOMB II	SDB002	10	02	02.....	Volume 1 - 83

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Small Diameter Bomb	SDB000	9	02	02.....	Volume 1 - 73

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Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Lookup Matrix by Model

Model:	LGM-30G	
Modification P-40a Aggregated Items Title:	MM III Modifications	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
5910	MINUTEMAN MEECN MODIFICATION	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
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
5915	ICBM Fuze Modernization	No
5916	ICBM Cryptography Upgrade Increment II	No
5921	MM LCC Block Upgrades	No
5925	MM III Auto Switching Unit (ASU)	No
5932	LGM-30G Remote Visual Assessment Phase II (RVA II)	No

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

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Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Model:	AGM-86B	
Modification P-40a Aggregated Items Title:	Air Launch Cruise Missile (ALCM)	
Item Number	Item Title	Applies to Multiple Models
_0468	AGM-86B Low Cost Mods	No
860002	AGM-86B Service Life Extension Program 2	No
860004	AGM-86B Service Life Extension Program 3	No
860011	Support Equipment	No
860101	AGM-86B Service Life Extension Program 1	No
860103	Warhead Arming Device (WAD)	No
860106	W-10 Cable	No
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
860009	AGM-86B CALCM/ALCM Test Instrumentation Kit	No
860105	Guided Missile Flight Controller (GMFC)	No
860107	Fuze Assembly	No
860108	Inertial Navigation Element (INE)	No

Model:	AGM-86	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
860104	Rotary Switch (RS)	No

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Funding (\$ M)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Exhibit P-40a										
MINUTEMAN MEECN MODIFICATION	117.717	11.411	-	-	-	-	-	-	-	-
T-9 Launch Facility Trainer Conversion (T-9)	33.286	-	2.230	0.287	-	0.287	-	-	-	-
LGM-30G Launch Control Center Break-In-Kit (LCCB)	0.226	-	-	-	-	-	-	-	-	-
A/D Switch Replacement	-	-	-	0.000	-	0.000	4.534	4.469	0.000	-
CMPT upgrade	-	-	0.859	0.129	-	0.129	-	-	-	-
Fast Rising B-Plug Service Extension Program (FRBP SLEP)	-	0.000	-	-	-	-	-	17.809	2.417	18.000
Low Cost Modifications	7.238	-	0.457	0.000	-	0.000	0.000	0.240	12.767	23.811
AGM-86B Low Cost Mods	1.798	0.000	0.090	0.100	-	0.100	0.100	0.100	0.100	-
AGM-86B Service Life Extension Program 2	57.877	0.000	0.000	0.000	-	0.000	0.000	-	-	-
AGM-86B Service Life Extension Program 3	14.553	-	-	-	-	-	-	-	-	-
Support Equipment	-	0.197	-	0.985	-	0.985	5.831	5.877	3.510	3.791
AGM-86B Service Life Extension Program 1	9.591	0.137	2.805	2.882	-	2.882	2.961	3.043	3.124	2.721
Warhead Arming Device (WAD)	-	7.777	0.009	0.009	-	0.009	0.010	0.001	-	-
W-10 Cable	-	0.646	0.727	0.749	-	0.749	0.371	0.206	-	-
Exhibit P-3a										
ICBM Fuze Modernization	41.778	13.941	19.497	46.908	0.000	46.908	101.652	114.783	120.971	121.290
ICBM Cryptography Upgrade Increment II	33.035	50.591	37.329	31.907	0.000	31.907	7.812	9.839	0.000	-
MM LCC Block Upgrades	0.000	24.113	17.246	30.800	0.000	30.800	2.100	0.000	-	-
MM III Auto Switching Unit (ASU)	0.000	0.247	0.565	6.873	0.000	6.873	50.547	49.123	25.890	0.000
LGM-30G Remote Visual Assessment Phase II (RVA II)	0.000	13.930	1.019	15.314	0.000	15.314	28.746	11.610	0.000	-

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Air Force • Budget Estimates FY 2021 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Funding for Modifications)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AGM-86B CALCM/ALCM Test Instrumentation Kit	108.178	1.300	11.767	11.800	0.000	11.800	9.200	3.300	0.000	0.000
Rotary Switch (RS)	0.000	7.970	6.228	6.403	0.000	6.403	6.572	5.229	0.235	0.232
Guided Missile Flight Controller (GMFC)	0.005	0.005	0.012	11.522	0.000	11.522	7.541	7.494	7.907	8.123
Fuze Assembly	-	0.000	13.905	7.609	0.000	7.609	2.025	0.026	0.000	0.000
Inertial Navigation Element (INE)	-	0.000	32.970	10.865	0.000	10.865	10.507	7.807	8.100	8.100
Totals (Total Obligation Authority)										
Total Obligation Authority	425.282	132.265	147.715	185.142	0.000	185.142	240.509	240.956	185.021	186.068

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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

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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

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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

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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

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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

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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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	13.927	55.888	75.012	-	75.012	51.303	48.379	36.531	23.523	-	304.563
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	13.927	55.888	75.012	-	75.012	51.303	48.379	36.531	23.523	-	304.563
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	13.927	55.888	75.012	-	75.012	51.303	48.379	36.531	23.523	-	304.563

(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 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..

The FY2021 funding request was reduced by \$5.656 million to account for the availability of prior year execution balances.

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 systems. PIGA/G6B4 BER EMD activities will modify or replace one Alignment Test Station and one Electrical Alignment Test Station. Additionally, funds may be used for any parts/re-work/technical data necessary for the retrofit of assets produced during RDT&E for operational capability after testing. This is a FY21 Procurement New Start.
- 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 replaces obsolete and unsupportable power distribution panels within Launch Control Centers and Launch Facilities. The LGM-30G Power Panels Modification (PPM) 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, Propulsion System Rocket Engine, and 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
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		
<ul style="list-style-type: none"> • Performance Assessment Data System Communication Equipment Interface Unit (PADS CEIU II): 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). • 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. • 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. 		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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				- / -	- / 3.000	- / 0.105	- / 0.385	- / -	- / 0.385
P-40a	MM Power Panels (PPM)				- / -	- / 3.395	- / 0.100	- / -	- / -	- / -
P-40a	Payload Transporter Replacement (PTR)				- / -	- / 7.282	- / 19.404	- / 38.160	- / -	- / 38.160
P-40a	Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER)				- / -	- / -	- / -	- / 1.538	- / -	- / 1.538
P-40a	Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II)				- / -	- / 0.250	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a	Reentry Field Support Equipment (RFSE)				- / -	- / 0.000	- / 0.302	- / -	- / -	- / -
P-40a	Transporter Erector Replacement Program (TERP)				- / -	- / -	- / 35.977	- / 34.929	- / -	- / 34.929
P-40	Total Gross/Weapon System Cost				- / -	- / 13.927	- / 55.888	- / 75.012	- / -	- / 75.012

*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:

This program, Missile Replacement Eq-Ballistic P-40A Category LGM-30G Item Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER), is a new start.

FY21 funding provides replacement support equipment items for an aging inventory of equipment which has become increasingly more 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 FY21 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, using FY21 funds to procure a total of two test stations: one Alignment Test Station and one Electrical Alignment Test Station.
- 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).
- MM Power Panels (PPM): Procures power panel replacements required to sustain Minuteman III operations through fielding of the Ground Based Strategic Deterrent (GBSD). Installation of all power panels will complete in FY20.
- Payload Transporter Replacement (PTR): The production contract was awarded in 3QFY19 for the first production article. Production will start in FY20 with the procurement of 2 units. FY21 will include award of 5 units for production.
- Reentry Field Support Equipment (RFSE): This program was completed in FY20.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
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		
<ul style="list-style-type: none">• Transporter Erector Replacement Program (TERP): Order for the first 4 units occurred in FY19 with 7 additional units procured in FY20. FY21 funding will be used to procure 8 remaining assets required to achieve Full Operational Capability.		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 01 / 3						P-1 Line Item Number / Title: 00099L / Missile Replacement Eq-Ballistic						Aggregated Items Title: Ballistic Missile Items Less Than \$5 Million							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
Various																				
Various	A		-	-	-	-	-	3.000	-	-	0.105	-	-	0.385	-	-	-	-	-	0.385
Subtotal: Various			-	-	-	-	-	3.000	-	-	0.105	-	-	0.385	-	-	-	-	-	0.385
Total			-	-	-	-	-	3.000	-	-	0.105	-	-	0.385	-	-	-	-	-	0.385

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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

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

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
LGM-30G Minuteman III Power Panels (PPM)	A		-	-	-	-	-	3.395	-	-	0.100	-	-	-	-	-	-	-	-	-
Subtotal: LGM-30G			-	-	-	-	-	3.395	-	-	0.100	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	3.395	-	-	0.100	-	-	-	-	-	-	-	-	-

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) 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.

Justification: Program completes installation in FY20.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
LGM-30G Payload Transporter Replacement (PTR)	A		-	-	-	-	-	7.282	9.702	2	19.404	7.632	5	38.160	-	-	-	7.632	5	38.160
Subtotal: LGM-30G			-	-	-	-	-	7.282	-	-	19.404	-	-	38.160	-	-	-	-	-	38.160
Total			-	-	-	-	-	7.282	-	-	19.404	-	-	38.160	-	-	-	-	-	38.160

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 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

FY21 funds will be used to produce five Payload Transporter Replacement (PTR) units and associated PMA efforts.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 01 / 3							P-1 Line Item Number / Title: 00099L / Missile Replacement Eq-Ballistic							Aggregated Items Title: Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER)	A		-	-	-	-	-	-	-	-	-	0.769	2	1.538	-	-	-	0.769	2	1.538
Subtotal: LGM-30G			-	-	-	-	-	-	-	-	-	-	-	1.538	-	-	-	-	-	1.538
Total			-	-	-	-	-	-	-	-	-	-	-	1.538	-	-	-	-	-	1.538

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

Remarks:
 Description: The Missile Guidance Set (MGS) repair is dependent on the proper functioning of the PIGA and G6B4 build equipment. The Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER) program replaces and updates obsolete systems. PIGA/G6B4 BER EMD activities will modify or replace one Alignment Test Station, one Gyro F-coefficient Station, one Torque Test Station, one Electrical Alignment Test Station, one Slip Ring Module Test Station, and one Digital Pickoff Alignment Test Station. Additionally, funds may be used for any parts/re-work/technical data necessary for the retrofit of assets produced during RDT&E for operational capability after testing. This is an FY21 Procurement New Start.

Justification: Pendulous Integrating Gyroscopic Accelerometer/G6B4 Build Equipment Replacement (PIGA/G6B4 BER) program replaces unsustainable equipment due to obsolescence issues affecting the ability to test and build the PIGA and G6B4, using FY21 funds to procure a total of two test stations: one Alignment Test Station and one Electrical Alignment Test Station.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 01 / 3	P-1 Line Item Number / Title: 00099L / Missile Replacement Eq-Ballistic	Aggregated Items Title: Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
Performance Assessment Data System Comm Equipment Interface Unit (PADS CEIU II)	A		-	-	-	-	-	0.250	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: LGM-30G			-	-	-	-	-	0.250	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.250	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:

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).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
LGM-30G Reentry Field Support Equipment (RFSE)	A		-	-	-	-	-	0.000	-	-	0.302	-	-	-	-	-	-	-	-	-
Subtotal: LGM-30G			-	-	-	-	-	0.000	-	-	0.302	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	0.000	-	-	0.302	-	-	-	-	-	-	-	-	-

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 AFGSC.

 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 was completed in FY20.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 01 / 3							P-1 Line Item Number / Title: 00099L / Missile Replacement Eq-Ballistic							Aggregated Items Title: Transporter Erector Replacement Program (TERP)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
LGM-30G																				
LGM-30G Transporter Erector Replacement Program (TERP)	A		-	-	-	-	-	-	5.140	7	35.977	4.366	8	34.929	-	-	-	4.366	8	34.929
Subtotal: LGM-30G			-	-	-	-	-	-	-	-	35.977	-	-	34.929	-	-	-	-	-	34.929
Total			-	-	-	-	-	-	-	-	35.977	-	-	34.929	-	-	-	-	-	34.929

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
 FY21 funding will be used to support the procurement and fielding of TERP assets.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	4.500	4.495	-	4.495	5.494	19.479	27.971	0.999	-	62.938
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	4.500	4.495	-	4.495	5.494	19.479	27.971	0.999	-	62.938
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	4.500	4.495	-	4.495	5.494	19.479	27.971	0.999	-	62.938

(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 Common Munitions BIT and Reprogramming Equipment (CMBRE) is unit-level support equipment for multiple types of munitions.

Funding for this exhibit is contained in PE 0701212F

Justification:

3020 FUNDS ARE REQUIRED FOR THE COMMON MUNITIONS BIT REPROGRAMMING EQUIPMENT SERVICE LIFE EXTENSION PROGRAM. 3020 funds required in order to fund upgrades for CMBRE system. CMBRE is comprised of three major components that must be replaced: DCSA (DIGITAL COMPUTER SYSTEM ASSEMBLY), TAU (TEST ADAPTER UNIT), and ADU. Without upgraded testing capability there will be no test capability for smart munitions and BRU-61 for fighter aircraft.

CMBRE Tester 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.

CMBRE SLEP breaks vendor lock and will allow for the Government to own full data rights and TDP.
CMBRE SLEP addresses obsolescence and cyber security issues.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	40	-	-	-	-	-	-	-	-	40
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	10.000
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	10.000
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	10.000

(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	-	-	-	-	-	-	-	-	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. The 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.

Funding for this exhibit is contained in PE 0201109F.

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 FY2021 funding requested.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	3,294	360	390	376	24	400	512	516	520	509	699	7,200
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,533.770	602.828	483.425	475.949	30.000	505.949	750.653	758.290	758.396	761.885	1,188.000	9,343.196
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,533.770	602.828	483.425	475.949	30.000	505.949	750.653	758.290	758.396	761.885	1,188.000	9,343.196
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3,533.770	602.828	483.425	475.949	30.000	505.949	750.653	758.290	758.396	761.885	1,188.000	9,343.196

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

Initial Spares (<i>\$ in Millions</i>)	-	0.425	0.434	0.440	-	0.440	0.449	0.457	0.465	0.472	-	3.142
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	1.073	1.675	1.240	1.266	1.250	1.265	1.466	1.470	1.458	1.497	1.700	1.298

Description:

FY2019 funding totals include \$61.6M appropriated for European Deterrence Initiative (EDI). These funds procure 48 missiles.
 FY2020 funding totals include \$20.9M appropriated for Overseas Contingency Operations (OCO). These funds procure 19 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 and JASSM-ER/AGM-158D). 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 and B-52. Objective aircraft for JASSM-ER/AGM-158B are the B-52, F-16, B-2 and F-15E. JASSM-ER/AGM-158D will start low rate initial production in FY21. The threshold aircraft for JASSM-ER/AGM-158D is the B-1. 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 FY17 is identified in P-1 line Item 654515.

JASSM-ER/AGM-158B started Full Rate Production in FY15, and achieved Initial Operational Capability (IOC) in December 2014 on the B-1B. FY21 will be the 19th production lot for the JASSM program. The program also plans to use funds to address Diminishing Manufacturing Sources and Material Shortages (DMSMS), obsolescence issues, and reliability improvement, including flight testing.

Funding for this exhibit is contained in PE 0207325F.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		1,260 / 1,697.442	360 / 602.828	390 / 483.425	376 / 475.949	24 / 30.000	400 / 505.949
P-40	Total Gross/Weapon System Cost				3,294 / 3,533.770	360 / 602.828	390 / 483.425	376 / 475.949	24 / 30.000	400 / 505.949

*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:
 FY21 funding totals include \$475.949M in base to procure 376 missiles and \$30.000M in OCO to procure 24 missiles.

 Funds may be used to address DMSMS/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 activities to preserve future production capabilities and capacity.

 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.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile	Item Number / Title [DODIC]: JASSM0 JASSM Baseline
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,836.328	-	-	-	-	-

(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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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>	-	-	1,420.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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>	-	-	416.290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	0.903	2,034	1,836.328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Air Force											Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2						P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile					Item Number / Title [DODIC]: Joint Air-Surface Standoff Missile				
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				1,260		360		390		376		24		400	
Gross/Weapon System Cost (\$ in Millions)				1,697.442		602.828		483.425		475.949		30.000		505.949	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				1,697.442		602.828		483.425		475.949		30.000		505.949	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Total Obligation Authority (\$ in Millions)				1,697.442		602.828		483.425		475.949		30.000		505.949	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-		0.425		0.434		0.440		-		0.440	
Gross/Weapon System Unit Cost (\$ in Millions)				1.347		1.675		1.240		1.266		1.250		1.265	

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
AGM-158B ^(†)	1.202	1,260	1,515.126	1.050	360	378.000	1.048	390	408.720	1.048	336	352.128	1.048	24	25.152	1.048	360	377.280
Engineering Change Orders	-	-	-	-	-	4.000	-	-	7.139	-	-	5.638	-	-	-	-	-	5.638
AGM-158D ^(†)	-	-	-	-	-	-	-	-	-	1.500	40	60.000	-	-	-	1.500	40	60.000
<i>Subtotal: Recurring Cost</i>	-	-	1,515.126	-	-	382.000	-	-	415.859	-	-	417.766	-	-	25.152	-	-	442.918
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	1,515.126	-	-	382.000	-	-	415.859	-	-	417.766	-	-	25.152	-	-	442.918
Support - Support End Item Cost																		
Program Management Administration (PMA)-A&AS	-	-	9.587	-	-	1.300	-	-	3.163	-	-	3.249	-	-	-	-	-	3.249
Program Management Administration (PMA)-Gov't Cost	-	-	4.564	-	-	1.066	-	-	1.095	-	-	1.115	-	-	-	-	-	1.115
Test Support/Reliability/Obsolescence	-	-	147.335	-	-	61.700	-	-	20.700	-	-	44.155	-	-	4.848	-	-	49.003
Prime Contractor Support	-	-	20.830	-	-	8.046	-	-	9.608	-	-	9.664	-	-	-	-	-	9.664
Facilitization	-	-	-	-	-	148.716	-	-	33.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	182.316	-	-	220.828	-	-	67.566	-	-	58.183	-	-	4.848	-	-	63.031
Gross/Weapon System Cost	1.347	1,260	1,697.442	1.675	360	602.828	1.240	390	483.425	1.266	376	475.949	1.250	24	30.000	1.265	400	505.949

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile	Item Number / Title [DODIC]: Joint Air-Surface Standoff Missile
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile	Item Number / Title [DODIC]: Joint Air-Surface Standoff Missile
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AGM-158B ^(†)		2017	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jun 2017	Sep 2019	360	1.146	Y		Aug 2016
AGM-158B ^(†)		2018	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Oct 2018	Sep 2020	360	1.063	Y		Jul 2017
AGM-158B ^(†)		2019	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Sep 2021	360	1.050	Y		Jul 2018
AGM-158B ^(†)		2020	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Sep 2022	390	1.048	Y		Jul 2019
AGM-158B ^(†)		2021	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jun 2021	Sep 2023	336	1.048	Y		Jul 2020
AGM-158B ^(†)	✓	2021	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jun 2021	Sep 2023	24	1.048	Y		Jul 2020
AGM-158D ^(†)		2021	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jun 2021	Jan 2024	40	1.500	Y		Jan 2020

^(†) indicates the presence of a P-21

Remarks:

The unit cost increase between AGM-158B and AGM-158D incorporates changes to the wings, Missile Control Unit (MCU), Electronic Safe and Arm Fuze (ESAF), paint coating, M-Code capable receiver and program protection requirements.

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile	Item Number / Title [DODIC]: Joint Air-Surface Standoff Missile
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

AGM-158B																														
Prior Years Deliveries: 540																														
	1	2017	AF	360	0	360																								360
	1	2018	AF	360	0	360																								360
	1	2019	AF	360	0	360																								360
	1	2019	FMS ^(†)	40	0	40																								40
	1	2019	Total	400	0	400																								400
	1	2020	AF	390	0	390																								390
	1	2021	AF	336	0	336																								336
	✓ 1	2021	AF	24	0	24																								24

AGM-158D																														
	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

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** JASSM0 / Joint Air-Surface Standoff Missile **Item Number / Title [DODIC]:** 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: 540																																	
	1	2017	AF	360	0	360	-	-	-	-	-	-	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	0
	1	2018	AF	360	0	360	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	330
	1	2019	AF	360	0	360																											360
	1	2019	FMS (†)	40	0	40																											40
	1	2019	Total	400	0	400																											400
	1	2020	AF	390	0	390																											390
	1	2021	AF	336	0	336																											336
✓	1	2021	AF	24	0	24																											24
AGM-158D																																	
	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			

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** JASSM0 / Joint Air-Surface Standoff Missile **Item Number / Title [DODIC]:** 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: 540																																	
	1	2017	AF	360	360	0																								0			
	1	2018	AF	360	30	330	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	30	30		0		
	1	2019	FMS (†)	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20		0			
	1	2019	Total	400	0	400	-	-	-	-	-	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	50	50	-	0			
	1	2020	AF	390	0	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	357			
	1	2021	AF	336	0	336										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	336			
✓	1	2021	AF	24	0	24										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	24			
AGM-158D																																	
	2	2021	AF	40	0	40										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	40			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** JASSM0 / Joint Air-Surface Standoff Missile **Item Number / Title [DODIC]:** 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: 540																																	
	1	2017	AF	360	360	0																											0
	1	2018	AF	360	360	0																											0
	1	2019	AF	360	360	0																											0
	1	2019	FMS (†)	40	40	0																											0
	1	2019	Total	400	400	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	1	2020	AF	390	33	357	33	33	33	33	33	33	33	31	31	31																	0
	1	2021	AF	336	0	336	-	-	-	-	-	-	-	-	-	-	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		0
✓	1	2021	AF	24	0	24	-	-	-	-	-	-	-	-	-	-	6	6	6	6													0
AGM-158D																																	
	2	2021	AF	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5		0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force	Date: February 2020
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Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: JASSM0 / Joint Air-Surface Standoff Missile	Item Number / Title [DODIC]: Joint Air-Surface Standoff Missile
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	175	400	400	0	9	27	36	0	0	0	0
2	Lockheed Martin - Troy, Alabama	175	400	400	0	9	31	40	0	0	0	0

(±) 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).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	35	15	-	5	-	5	-	44	52	28	-	179
Gross/Weapon System Cost (<i>\$ in Millions</i>)	133.139	54.385	0.000	19.800	-	19.800	0.000	164.827	182.808	100.854	0.000	655.813
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	133.139	54.385	0.000	19.800	-	19.800	0.000	164.827	182.808	100.854	0.000	655.813
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	133.139	54.385	0.000	19.800	-	19.800	0.000	164.827	182.808	100.854	0.000	655.813

(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>)	3.804	3.626	-	3.960	-	3.960	-	3.746	3.516	3.602	-	3.664

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 will provide 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. The program is also evaluating Diminishing Manufacturing Sources and Material Shortages (DMSMS) and reviewing obsolescence issues. Funds may be used to address production DMSMS/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 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		35 / 133.139	15 / 54.385	- / 0.000	5 / 19.800	- / -	5 / 19.800
P-40	Total Gross/Weapon System Cost				35 / 133.139	15 / 54.385	- / 0.000	5 / 19.800	- / -	5 / 19.800

*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:
FY2021 funding totals include \$19.8M to procure 5 missiles.

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.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASMO / LRASMO	Item Number / Title [DODIC]: LRASMO

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	35	15	-	5	-	5
Gross/Weapon System Cost (\$ in Millions)	133.139	54.385	0.000	19.800	-	19.800
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	133.139	54.385	0.000	19.800	-	19.800
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	133.139	54.385	0.000	19.800	-	19.800

(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)	3.804	3.626	-	3.960	-	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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - LRASM Cost																		
Recurring Cost																		
LRASM All-Up-Round ^(†)	3.466	35	121.310	3.443	15	51.644	-	-	0.000	3.600	5	18.000	-	-	-	3.600	5	18.000
Contingent Liability	-	-	9.160	-	-	2.741	-	-	-	-	-	1.800	-	-	-	-	-	1.800
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>130.470</i>	<i>-</i>	<i>-</i>	<i>54.385</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>19.800</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>19.800</i>
<i>Subtotal: Hardware - LRASM Cost</i>	<i>-</i>	<i>-</i>	<i>130.470</i>	<i>-</i>	<i>-</i>	<i>54.385</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>19.800</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>19.800</i>
Support - LRASMO Cost																		
Program Management Administration (PMA)-A&AS	-	-	0.280	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Program Management Administration (PMA)-Gov't Cost	-	-	0.089	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Tooling	-	-	2.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - LRASMO Cost</i>	<i>-</i>	<i>-</i>	<i>2.669</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>0.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.000</i>
Gross/Weapon System Cost	3.804	35	133.139	3.626	15	54.385	-	-	0.000	3.960	5	19.800	-	-	-	3.960	5	19.800

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.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASM0 / LRASM0	Item Number / Title [DODIC]: LRASM0
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASM0 / LRASM0	Item Number / Title [DODIC]: LRASM0
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LRASM All-Up-Round ^(†)		2017	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Jul 2017	Sep 2018	19	3.483	N	Oct 2015	Oct 2015
LRASM All-Up-Round ^(†)		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 ^(†)		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 ^(†)		2021	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Dec 2020	May 2023	5	3.600	N	Jan 2020	Feb 2020

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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 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																																			
1		2017	AF ⁽¹⁾	19	9	10	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	-	1	1		0
1		2017	NAVY ^(‡)	15	0	15	-	-	-	-	-	-	1	-	1	-	5	1	2	-	-	1	-	-	2	2	-							0	
1		2017	Total	34	9	25	-	1	-	-	-	-	1	-	1	-	5	1	2	-	-	3	3	2	2	3	1	-	-	-	-	-	0		
1		2018	AF	16	0	16		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
1		2018	NAVY ^(‡)	34	0	34		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	31	
1		2018	Total	50	0	50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	47	
1		2019	AF	15	0	15																												15	
1		2019	NAVY ^(‡)	33	0	33																													33
1		2019	Total	48	0	48																												48	
1		2021	AF	5	0	5																													5
1		2021	NAVY ^(‡)	48	0	48																													48
1		2021	Total	53	0	53																												53	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASM0 / LRASM0	Item Number / Title [DODIC]: LRASM0
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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																															
	1	2017	AF ⁽¹⁾	19	19	0																							0		
	1	2017	NAVY ^(‡)	15	15	0																							0		
	1	2017	Total	34	34	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2018	AF	16	0	16	-	-	-	-	-	-	1	5	5	5													0		
	1	2018	NAVY ^(‡)	34	3	31	4	4	4	4	4	4	3	-	-	-												0			
	1	2018	Total	50	3	47	4	4	4	4	4	4	4	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2019	AF	15	0	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5	5	0			
	1	2019	NAVY ^(‡)	33	0	33	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	3	3	3	-	-	-	0		
	1	2019	Total	48	0	48	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	3	3	4	4	5	5	-	0		
	1	2021	AF	5	0	5			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5			
	1	2021	NAVY ^(‡)	48	0	48			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48			
	1	2021	Total	53	0	53			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53			
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	A	A	U	U	U	E	C	O	V	E	A	E	A	A	U	U	U	E	
							T	V	C	N	B	R	P	Y	N	L	G	P	T	V	C	N	B	R	P	Y	N	L	G	P	

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASM0 / LRASM0	Item Number / Title [DODIC]: LRASM0
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LRASM All-Up-Round																																	
1		2017	AF ⁽¹⁾	19	19	0																								0			
1		2017	NAVY ^(‡)	15	15	0																								0			
1		2017	Total	34	34	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1		2018	AF	16	16	0																							0				
1		2018	NAVY ^(‡)	34	34	0																							0				
1		2018	Total	50	50	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1		2019	AF	15	15	0																							0				
1		2019	NAVY ^(‡)	33	33	0																							0				
1		2019	Total	48	48	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1		2021	AF	5	0	5	-	-	-	-	-	-	1	1	1	1	1												0				
1		2021	NAVY ^(‡)	48	0	48	3	4	4	4	4	4	4	4	4	4	5												0				
1		2021	Total	53	0	53	3	4	4	4	4	4	5	5	5	5	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			

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: LRASMO / LRASMO	Item Number / Title [DODIC]: LRASMO
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	50	72	72	0	3	29	32	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).

Footnotes:

(1) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2018 loaded in the month of first delivery.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2,106	257	355	331	-	331	229	233	232	244	2,323	6,310
Gross/Weapon System Cost (<i>\$ in Millions</i>)	919.395	118.253	155.289	164.769	-	164.769	117.514	121.816	120.381	122.537	1,368.894	3,208.848
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	919.395	118.253	155.289	164.769	-	164.769	117.514	121.816	120.381	122.537	1,368.894	3,208.848
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	919.395	118.253	155.289	164.769	-	164.769	117.514	121.816	120.381	122.537	1,368.894	3,208.848
<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>)	19.881	1.800	0.234	1.861	-	1.861	2.699	2.732	1.968	2.004	51.185	84.364
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.393	0.434	0.416	0.472	-	0.472	0.476	0.485	0.481	0.465	0.546	0.469
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.437	0.460	0.437	0.498	-	0.498	0.513	0.523	0.519	0.502	0.589	0.509

Description:

The AIM-9X Block II/II+ Sidewinder (AIM-9X Blk 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 basic fighter maneuvering (dogfighting) 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 Navy's Navigation 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		2,106 / 919.395	257 / 118.253	355 / 155.289	331 / 164.769	- / -	331 / 164.769
P-40	Total Gross/Weapon System Cost				2,106 / 919.395	257 / 118.253	355 / 155.289	331 / 164.769	- / -	331 / 164.769

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

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

Justification:
 FY 2021 provides funding to procure the seventh lot of Full Rate Production (FRP) AIM-9X Block II (Blk II) missiles, as well as the fifth lot of AIM-9X Block II Plus (Blk II+) missiles for the Air Force. FY 2021 also continues the procurement of missiles for the Army Indirect Fire Protection Capability Increment 2 (IFPC2) program. The program unit costs are based on quantities procured by all the US 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.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force											Date: February 2020				
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)				
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				2,106		257		355		331		-		331	
Gross/Weapon System Cost (\$ in Millions)				919.395		118.253		155.289		164.769		-		164.769	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				919.395		118.253		155.289		164.769		-		164.769	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Total Obligation Authority (\$ in Millions)				919.395		118.253		155.289		164.769		-		164.769	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				19.881		1.800		0.234		1.861		-		1.861	
Gross/Weapon System Unit Cost (\$ in Millions)				0.437		0.460		0.437		0.498		-		0.498	

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ^(†)	0.396	1,488	588.972	0.381	176	67.068	0.387	275	106.463	0.455	225	102.302	-	-	-	0.455	225	102.302
Captive Air Training Missile (CATM) - Block II ^(†)	0.218	493	107.531	-	-	0.000	-	-	0.000	0.223	26	5.800	-	-	-	0.223	26	5.800
Engineering Change Orders - Block II	-	-	2.038	-	-	3.253	-	-	2.246	-	-	3.776	-	-	-	-	-	3.776
Diminishing Manufacturing Sources	-	-	16.781	-	-	1.186	-	-	1.392	-	-	1.527	-	-	-	-	-	1.527
Government Cost (GFE & Testing) - Block II	-	-	0.602	-	-	0.052	-	-	0.098	-	-	0.000	-	-	-	-	-	0.000
Special Test/Special Tooling Equipment - Block II	-	-	15.811	-	-	0.714	-	-	1.485	-	-	1.514	-	-	-	-	-	1.514
Missile Containers - Block II	0.013	589	7.442	0.013	71	0.888	0.013	98	1.246	0.013	92	1.198	-	-	-	0.013	92	1.198
Non-Recurring Engineering - Block II	-	-	34.050	-	-	5.918	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
All Up Round - Block II Plus ^(†)	0.440	125	54.981	0.400	80	31.962	0.436	80	34.868	0.500	80	40.031	-	-	-	0.500	80	40.031
<i>Subtotal: Recurring Cost</i>	-	-	<i>828.208</i>	-	-	<i>111.041</i>	-	-	<i>147.798</i>	-	-	<i>156.148</i>	-	-	-	-	-	<i>156.148</i>

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
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)					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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>	-	-	828.208	-	-	111.041	-	-	147.798	-	-	156.148	-	-	-	-	-	156.148
Support - Support End Item Cost																		
Production Tech Support	-	-	23.769	-	-	3.197	-	-	2.105	-	-	2.147	-	-	-	-	-	2.147
Peculiar Support Equipment - Block II	-	-	0.207	-	-	0.042	-	-	0.043	-	-	0.044	-	-	-	-	-	0.044
Test Equipment - Block II	-	-	10.682	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PMA Contractor Services - Block II	-	-	10.481	-	-	0.998	-	-	1.254	-	-	1.510	-	-	-	-	-	1.510
PMA Other Government Costs - Block II	-	-	45.994	-	-	2.902	-	-	4.059	-	-	4.889	-	-	-	-	-	4.889
Training Support - Block II	-	-	0.054	-	-	0.073	-	-	0.030	-	-	0.031	-	-	-	-	-	0.031
<i>Subtotal: Support - Support End Item Cost</i>	-	-	91.187	-	-	7.212	-	-	7.491	-	-	8.621	-	-	-	-	-	8.621
Gross/Weapon System Cost	0.437	2,106	919.395	0.460	257	118.253	0.437	355	155.289	0.498	331	164.769	-	-	-	0.498	331	164.769

Remarks:

Program acquired 1 additional missile in FY19 under buy-to-budget authority (total qty. 257). This action did not affect the unit cost of the missile.

Program expected to acquire 1 additional missile in FY20 under buy-to-budget authority (total qty. 356). This action will not affect the unit cost of the missile.

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 February 2020 and procures the Full Rate Production (FRP) missile.

Block I is concluded and all funding/quantity data in the documents are associated with Block II activities. The Block I program costs were \$472.086M.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

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)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
All Up Round - Block II ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2017	Sep 2019	186	0.376	Y		Jan 2016
All Up Round - Block II ^(†)		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Dec 2018	Sep 2020	182	0.362	Y		Mar 2017
All Up Round - Block II ^(†)		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Apr 2019	Sep 2021	176	0.381	Y		Jan 2018
All Up Round - Block II ^(†)		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2020	Aug 2022	275	0.387	Y		Jan 2019
All Up Round - Block II ^(†)		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2021	Aug 2023	225	0.455	Y		Jan 2020
Captive Air Training Missile (CATM) - Block II ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2017	Sep 2019	77	0.195	Y		Jan 2016
Captive Air Training Missile (CATM) - Block II ^(†)		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 ^(†)		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2021	Aug 2023	26	0.223	Y		Jan 2020
All Up Round - Block II Plus ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2017	Sep 2019	50	0.475	Y		Jan 2016
All Up Round - Block II Plus ^(†)		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 ^(†)		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 ^(†)		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2020	Aug 2022	80	0.436	Y		Jan 2019
All Up Round - Block II Plus ^(†)		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2021	Aug 2023	80	0.500	Y		Jan 2020

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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 2017														Fiscal Year 2018														BALANCE			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 6	BAL D U E A S O F 1 O C T	Calendar Year 2017														Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
All Up Round - Block II																																			
Prior Years Deliveries: 1120																																			
	1	2017	AF	186	0	186																												186	
	1	2017	FMS (+)	120	0	120																												120	
	1	2017	NAVY (+)	75	0	75																												75	
	1	2017	Total	381	0	381																												381	
	1	2018	AF	182	0	182																												182	
	1	2018	FMS (+)	431	0	431																												431	
	1	2018	NAVY (+)	141	0	141																												141	
	1	2018	Total	754	0	754																												754	
	1	2019	AF	176	0	176																												176	
	1	2019	FMS (+)	156	0	156																												156	
	1	2019	NAVY (+)	227	0	227																												227	
	1	2019	Total	559	0	559																												559	
	1	2020	AF	275	0	275																												275	
	1	2020	FMS (+)	167	0	167																												167	
	1	2020	NAVY (+)	201	0	201																												201	
	1	2020	Total	643	0	643																												643	
	1	2021	AF	225	0	225																												225	
	1	2021	FMS (+)	38	0	38																												38	
	1	2021	NAVY (+)	203	0	203																												203	
	1	2021	Total	466	0	466																												466	
Captive Air Training Missile (CATM) - Block II																																			
Prior Years Deliveries: 352																																			
	2	2017	AF	77	0	77																											77		
	2	2017	FMS (+)	98	0	98																												98	
	2	2017	NAVY (+)	32	0	32																												32	
	2	2017	Total	207	0	207																												207	
	2	2018	AF	64	0	64																												64	
	2	2018	FMS (+)	76	0	76																												76	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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)
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Cost Elements (Units in Each)					Fiscal Year 2017													Fiscal Year 2018													BALANCE			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T T O 1 O C T 2016	BAL DUE AS OF 1 O C T	Calendar Year 2017													Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
	2	2018	NAVY (+)	40	0	40																												40
	2	2018	Total	180	0	180																											180	
	2	2021	AF	26	0	26																											26	
	2	2021	NAVY (+)	59	0	59																											59	
	2	2021	Total	85	0	85																											85	
All Up Round - Block II Plus																																		
	3	2017	AF	50	0	50																											50	
	3	2017	NAVY (+)	50	0	50																											50	
	3	2017	Total	100	0	100																											100	
	3	2018	AF	75	0	75																											75	
	3	2018	FMS (+)	73	0	73																											73	
	3	2018	NAVY (+)	12	0	12																											12	
	3	2018	Total	160	0	160																											160	
	3	2019	AF	80	0	80																											80	
	3	2019	FMS (+)	146	0	146																											146	
	3	2019	NAVY (+)	8	0	8																											8	
	3	2019	Total	234	0	234																											234	
	3	2020	AF	80	0	80																											80	
	3	2020	NAVY (+)	8	0	8																											8	
	3	2020	Total	88	0	88																											88	
	3	2021	AF	80	0	80																											80	
	3	2021	FMS (+)	66	0	66																											66	
	3	2021	NAVY (+)	8	0	8																											8	
	3	2021	Total	154	0	154																											154	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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														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					
All Up Round - Block II																																			
Prior Years Deliveries: 1120																																			
1	2017	AF		186	0	186	-	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16	15	15	15	15	15	15		0					
1	2017	FMS (+)		120	0	120	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10		0					
1	2017	NAVY (+)		75	0	75	-	-	-	-	-	-	-	-	-	5	10	10	10	5	5	5	5	5	5	5	5		0						
1	2017	Total		381	0	381	-	-	-	-	-	-	-	-	-	31	36	36	36	31	31	30	30	30	30	30	30	30	-	0					
1	2018	AF		182	0	182			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	166					
1	2018	FMS (+)		431	0	431			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	395					
1	2018	NAVY (+)		141	0	141			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	129					
1	2018	Total		754	0	754			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	690						
1	2019	AF		176	0	176							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176					
1	2019	FMS (+)		156	0	156							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156					
1	2019	NAVY (+)		227	0	227							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227					
1	2019	Total		559	0	559							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	559					
1	2020	AF		275	0	275																								275					
1	2020	FMS (+)		167	0	167																								167					
1	2020	NAVY (+)		201	0	201																								201					
1	2020	Total		643	0	643																								643					
1	2021	AF		225	0	225																								225					
1	2021	FMS (+)		38	0	38																								38					
1	2021	NAVY (+)		203	0	203																								203					
1	2021	Total		466	0	466																								466					
Captive Air Training Missile (CATM) - Block II																																			
Prior Years Deliveries: 352																																			
2	2017	AF		77	0	77	-	-	-	-	-	-	-	-	-	8	8	7	6	6	6	6	6	6	6	6	6	6		0					
2	2017	FMS (+)		98	0	98	-	-	-	-	-	-	-	-	-	8	8	8	8	8	9	8	8	8	8	8	9		0						
2	2017	NAVY (+)		32	0	32	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	4	6	4		0						
2	2017	Total		207	0	207	-	-	-	-	-	-	-	-	-	18	18	17	16	16	17	16	16	16	18	20	19	-	0						
2	2018	AF		64	0	64			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	59					
2	2018	FMS (+)		76	0	76			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	70					
									O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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													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							
	2	2018	NAVY (+)	40	0	40				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	37	
	2	2018	Total	180	0	180				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	166		
	2	2021	AF	26	0	26																													26		
	2	2021	NAVY (+)	59	0	59																													59		
	2	2021	Total	85	0	85																													85		
All Up Round - Block II Plus																																					
	3	2017	AF	50	0	50	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	2	1	0
	3	2017	NAVY (+)	50	0	50	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	2	1	0
	3	2017	Total	100	0	100	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	4	4	2	-	0	
	3	2018	AF	75	0	75				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	68	
	3	2018	FMS (+)	73	0	73				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	67	
	3	2018	NAVY (+)	12	0	12				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	11	
	3	2018	Total	160	0	160				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	146		
	3	2019	AF	80	0	80												A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	
	3	2019	FMS (+)	146	0	146												A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146	
	3	2019	NAVY (+)	8	0	8												A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
	3	2019	Total	234	0	234				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	234	
	3	2020	AF	80	0	80																														80	
	3	2020	NAVY (+)	8	0	8																														8	
	3	2020	Total	88	0	88																														88	
	3	2021	AF	80	0	80																														80	
	3	2021	FMS (+)	66	0	66																														66	
	3	2021	NAVY (+)	8	0	8																														8	
	3	2021	Total	154	0	154																														154	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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: 1120																																	
1	2017	AF		186	186	0																											0
1	2017	FMS (+)		120	120	0																											0
1	2017	NAVY (+)		75	75	0																											0
1	2017	Total		381	381	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2018	AF		182	16	166	16	15	15	15	15	15	15	15	15																	0	
1	2018	FMS (+)		431	36	395	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	
1	2018	Total		754	64	690	64	63	62	63	62	62	62	63	63	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2019	AF		176	0	176	-	-	-	-	-	-	-	-	-	16	16	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	14	14				0	
1	2019	NAVY (+)		227	0	227	-	-	-	-	-	-	-	-	-	21	21	21	21	21	21	21	21	20	20	20	20				0		
1	2019	Total		559	0	559	-	-	-	-	-	-	-	-	-	52	52	51	51	51	51	51	51	50	50	50	50	-	-	-	0		
1	2020	AF		275	0	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	23		229		
1	2020	FMS (+)		167	0	167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14		139		
1	2020	NAVY (+)		201	0	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17		167		
1	2020	Total		643	0	643	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54		535		
1	2021	AF		225	0	225																										225	
1	2021	FMS (+)		38	0	38																										38	
1	2021	NAVY (+)		203	0	203																										203	
1	2021	Total		466	0	466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	466	
Captive Air Training Missile (CATM) - Block II																																	
Prior Years Deliveries: 352																																	
2	2017	AF		77	77	0																										0	
2	2017	FMS (+)		98	98	0																										0	
2	2017	NAVY (+)		32	32	0																										0	
2	2017	Total		207	207	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
2	2018	AF		64	5	59	5	6	5	5	6	5	5	6	5	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	6	7	6	6	7	6	6	7	6	6	7					0			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force Date: February 2020

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											
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R TO 1 O C T 2020	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												
2	2018		NAVY (‡)	40	3	37	3	3	4	4	3	3	4	4	3	3																									0	
2	2018		Total	180	14	166	15	15	16	15	15	14	16	16	15	14	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
2	2021		AF	26	0	26																																		26		
2	2021		NAVY (‡)	59	0	59						A -																												59		
2	2021		Total	85	0	85						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85			
All Up Round - Block II Plus																																										
3	2017		AF	50	50	0																																	0			
3	2017		NAVY (‡)	50	50	0																																	0			
3	2017		Total	100	100	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
3	2018		AF	75	7	68	7	7	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																							0				
3	2018		Total	160	14	146	14	14	13	13	13	13	13	13	13	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
3	2019		AF	80	0	80	-	-	-	-	-	-	-	-	-	-	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0			
3	2019		FMS (‡)	146	0	146	-	-	-	-	-	-	-	-	-	-	14	14	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	0			
3	2019		NAVY (‡)	8	0	8	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	1	1	1	1	1	1	1	1	1	-							0				
3	2019		Total	234	0	234	-	-	-	-	-	-	-	-	-	-	23	23	22	21	20	21	21	21	21	21	21	21	21	20	-	-	-	-	-	0						
3	2020		AF	80	0	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	66					
3	2020		NAVY (‡)	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	6					
3	2020		Total	88	0	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	72				
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		Total	154	0	154						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P												

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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: 1120																																	
	1	2017	AF	186	186	0																							0				
	1	2017	FMS (+)	120	120	0																							0				
	1	2017	NAVY (+)	75	75	0																							0				
	1	2017	Total	381	381	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
	1	2018	AF	182	182	0																							0				
	1	2018	FMS (+)	431	431	0																							0				
	1	2018	NAVY (+)	141	141	0																							0				
	1	2018	Total	754	754	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
	1	2019	AF	176	176	0																							0				
	1	2019	FMS (+)	156	156	0																							0				
	1	2019	NAVY (+)	227	227	0																							0				
	1	2019	Total	559	559	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
	1	2020	AF	275	46	229	23	23	23	23	23	23	23	23	22														0				
	1	2020	FMS (+)	167	28	139	14	14	14	14	14	14	14	14	13														0				
	1	2020	NAVY (+)	201	34	167	17	17	17	17	17	17	16	16	16														0				
	1	2020	Total	643	108	535	54	54	54	54	54	54	53	53	51	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
	1	2021	AF	225	0	225	-	-	-	-	-	-	-	-	-	18	18	18	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	4	4	0				
	1	2021	NAVY (+)	203	0	203	-	-	-	-	-	-	-	-	-	17	17	17	17	17	17	17	17	17	17	17	16	16	0				
	1	2021	Total	466	0	466	-	-	-	-	-	-	-	-	-	38	38	38	39	39	39	39	39	39	39	39	40	39	-	-	0		
Captive Air Training Missile (CATM) - Block II																																	
Prior Years Deliveries: 352																																	
	2	2017	AF	77	77	0																							0				
	2	2017	FMS (+)	98	98	0																							0				
	2	2017	NAVY (+)	32	32	0																							0				
	2	2017	Total	207	207	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
	2	2018	AF	64	64	0																							0				
	2	2018	FMS (+)	76	76	0																							0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force	Date: February 2020
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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)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	9,968	187	220	414	-	414	386	432	432	577	235	12,851
Gross/Weapon System Cost (<i>\$ in Millions</i>)	9,644.383	307.486	311.730	453.223	-	453.223	406.999	444.464	454.837	597.133	305.747	12,926.002
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	9,644.383	307.486	311.730	453.223	-	453.223	406.999	444.464	454.837	597.133	305.747	12,926.002
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	9,644.383	307.486	311.730	453.223	-	453.223	406.999	444.464	454.837	597.133	305.747	12,926.002
<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>)	86.767	0.023	0.529	2.091	-	2.091	3.049	3.087	2.211	2.251	2.296	102.304
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.968	1.644	1.417	1.095	-	1.095	1.054	1.029	1.053	1.035	1.301	1.006

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 and the United States Navy. 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 also 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.

Funding for this exhibit is contained in PE 0207163F.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		9,968 / 9,644.383	187 / 307.486	220 / 311.730	414 / 453.223	- / -	414 / 453.223
P-40	Total Gross/Weapon System Cost				9,968 / 9,644.383	187 / 307.486	220 / 311.730	414 / 453.223	- / -	414 / 453.223

*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:
 FY21 continues procurement and support of AMRAAM for the Air Force and Navy in Lot 35. USAF funds will procure 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 and 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, US Code Section 2308 BUY-TO-BUDGET ACQUISITION.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: MAMRA0 / AMRAAM	Item Number / Title [DODIC]: AMRAAM

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	9,968	187	220	414	-	414
Gross/Weapon System Cost (\$ in Millions)	9,644.383	307.486	311.730	453.223	-	453.223
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	9,644.383	307.486	311.730	453.223	-	453.223
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	9,644.383	307.486	311.730	453.223	-	453.223

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

Initial Spares (\$ in Millions)	86.767	0.023	0.529	2.091	-	2.091
Gross/Weapon System Unit Cost (\$ in Millions)	0.968	1.644	1.417	1.095	-	1.095

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
AIM-120 Missile All Up Round (AUR) ^(†)	1.038	1,783	1,850.238	1.023	187	191.288	1.045	220	229.947	0.959	374	358.697	-	-	-	0.959	374	358.697
AIM-120 Missile Captive Air Training Missile (CATM) ^(†)	0.635	444	281.823	-	-	0.000	-	-	0.000	0.526	40	21.052	-	-	-	0.526	40	21.052
Warranty	-	-	70.328	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Diminishing Manufacturing Sources/Material Shortages (DMS/MS)	-	-	434.927	-	-	53.249	-	-	40.320	-	-	35.155	-	-	-	-	-	35.155
Tooling and Test Equipment	-	-	105.074	-	-	26.350	-	-	2.726	-	-	1.388	-	-	-	-	-	1.388
Engineering Change Orders	-	-	2.755	-	-	0.000	-	-	0.000	-	-	1.500	-	-	-	-	-	1.500
Total Prior Years Costs	0.846	7,741	6,545.560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	9,290.705	-	-	270.887	-	-	272.993	-	-	417.792	-	-	-	-	-	417.792
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	9,290.705	-	-	270.887	-	-	272.993	-	-	417.792	-	-	-	-	-	417.792
Ancillary Equipment - AncillaryEquipment End Item Cost																		
Recurring Cost																		
Containers and Cables	-	-	9.305	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2						P-1 Line Item Number / Title: MAMRA0 / AMRAAM						Item Number / Title [DODIC]: AMRAAM					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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>	-	-	9,305	-	-	1,250	-	-	1,250	-	-	1,250	-	-	-	-	-	1,250
<i>Subtotal: Ancillary Equipment - Ancillary Equipment End Item Cost</i>	-	-	9,305	-	-	1,250	-	-	1,250	-	-	1,250	-	-	-	-	-	1,250
Support - Support End Item Cost																		
Production Test/Support	-	-	124,909	-	-	9,469	-	-	9,929	-	-	8,049	-	-	-	-	-	8,049
PMA Other Government Costs	-	-	13,776	-	-	1,914	-	-	3,506	-	-	1,601	-	-	-	-	-	1,601
PMA Contractor Services	-	-	20,544	-	-	2,593	-	-	2,645	-	-	2,697	-	-	-	-	-	2,697
Training Equipment	-	-	185,144	-	-	21,373	-	-	21,407	-	-	21,834	-	-	-	-	-	21,834
<i>Subtotal: Support - Support End Item Cost</i>	-	-	344,373	-	-	35,349	-	-	37,487	-	-	34,181	-	-	-	-	-	34,181
Gross/Weapon System Cost	0.968	9,968	9,644.383	1.644	187	307.486	1.417	220	311.730	1.095	414	453.223	-	-	-	1.095	414	453.223

Remarks:

- 1) 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.
 - 2) The Production/Test Support cost element includes costs such as engineering studies, technical support, network security, and modification of special test assets.
 - 3) 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.
 - 4) CATMS: Total Procurement objective includes CATMS & AUR. Quantity subject to changes based on warfighter requirements.
- (t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: MAMRA0 / AMRAAM	Item Number / Title [DODIC]: AMRAAM
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AIM-120 Missile All Up Round (AUR) ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Dec 2017	Oct 2019	256	0.953	Y		Jan 2016
AIM-120 Missile All Up Round (AUR) ^(†)		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) ^(†)		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) ^(†)		2020	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Oct 2020	Apr 2022	220	1.045	Y		Sep 2018
AIM-120 Missile All Up Round (AUR) ^(†)		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2021	Apr 2023	374	0.959	Y		Sep 2018
AIM-120 Missile Captive Air Training Missile (CATM) ^(†)		2021	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2021	Apr 2023	40	0.526	Y		Sep 2018

^(†) 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.

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Exhibit P-21, Production Schedule: PB 2021 Air Force		Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: MAMRA0 / AMRAAM		Item Number / Title [DODIC]: 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: 1342																															
1		2017	AF	256	0	256				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	256	
1		2017	FMS (+)	306	0	306				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	306	
1		2017	NAVY (+)	144	0	144				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	
1		2017	Total	706	0	706				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	706		
1		2018	AF	185	0	185								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	
1		2018	FMS (+)	279	0	279								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	279	
1		2018	NAVY (+)	120	0	120								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	
1		2018	Total	584	0	584								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	584		
1		2019	AF	187	0	187																								187	
1		2019	FMS (+)	434	0	434																								434	
1		2019	NAVY (+)	167	0	167																								167	
1		2019	Total	788	0	788																								788	
1		2020	AF	220	0	220																								220	
1		2020	FMS (+)	242	0	242																								242	
1		2020	NAVY (+)	192	0	192																								192	
1		2020	Total	654	0	654																								654	
1		2021	AF	374	0	374																								374	
1		2021	FMS (+)	350	0	350																								350	
1		2021	NAVY (+)	315	0	315																								315	
1		2021	Total	1,039	0	1,039																								1,039	

AIM-120 Missile Captive Air Training Missile (CATM)																														
Prior Years Deliveries: 444																														
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
2		2021	AF	40	0	40																								40

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** MAMRA0 / AMRAAM **Item Number / Title [DODIC]:** 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: 1342																																	
1	2017	AF		256	0	256	30	-	-	-	-	-	-	226															0				
1	2017	FMS (+)		306	0	306	164	-	-	140	-	-	-	2															0				
1	2017	NAVY (+)		144	0	144	8	-	-	-	-	-	-	136															0				
1	2017	Total		706	0	706	202	-	-	140	-	-	-	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1	2018	AF		185	0	185	-	-	-	-	-	-	-	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-	0				
1	2018	FMS (+)		279	0	279	-	-	-	-	-	-	-	-	-	-	138	-	-	-	-	-	-	-	-	-	-	-	0				
1	2018	NAVY (+)		120	0	120	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	0				
1	2018	Total		584	0	584	-	-	-	-	-	-	-	292	-	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2019	AF		187	0	187			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	48	-	-	91	
1	2019	FMS (+)		434	0	434			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	-	74	-	-	286	
1	2019	NAVY (+)		167	0	167			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	42	-	-	84	
1	2019	Total		788	0	788			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	163	-	-	164	-	-	461		
1	2020	AF		220	0	220																										220	
1	2020	FMS (+)		242	0	242																										242	
1	2020	NAVY (+)		192	0	192																										192	
1	2020	Total		654	0	654																										654	
1	2021	AF		374	0	374																										374	
1	2021	FMS (+)		350	0	350																										350	
1	2021	NAVY (+)		315	0	315																										315	
1	2021	Total		1,039	0	1,039																										1,039	

AIM-120 Missile Captive Air Training Missile (CATM)

Prior Years Deliveries: 444

2	2021	AF		40	0	40																										40	

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** MAMRA0 / AMRAAM **Item Number / Title [DODIC]:** 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: 1342																																	
1	2017	AF		256	256	0																											0
1	2017	FMS (+)		306	306	0																											0
1	2017	NAVY (+)		144	144	0																											0
1	2017	Total		706	706	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2018	AF		185	185	0																											0
1	2018	FMS (+)		279	279	0																											0
1	2018	NAVY (+)		120	120	0																											0
1	2018	Total		584	584	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
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
1	2019	Total		788	327	461	163	-	-	-	298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2020	AF		220	0	220	-	-	-	-	-	55	-	-	55	-	-	55	-	-	55												0
1	2020	FMS (+)		242	0	242	-	-	-	-	-	60	-	-	60	-	-	61	-	-	61												0
1	2020	NAVY (+)		192	0	192	-	-	-	-	-	48	-	-	48	-	-	48	-	-	48												0
1	2020	Total		654	0	654	-	-	-	-	-	163	-	-	163	-	-	164	-	-	164	-	-	-	-	-	-	-	-	-	-	0	
1	2021	AF		374	0	374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												186
1	2021	FMS (+)		350	0	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												176
1	2021	NAVY (+)		315	0	315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												155
1	2021	Total		1,039	0	1,039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517	

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							

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: MAMRA0 / AMRAAM	Item Number / Title [DODIC]: AMRAAM
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024													Fiscal Year 2025													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024													Calendar Year 2025													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
AIM-120 Missile All Up Round (AUR)																																	
Prior Years Deliveries: 1342																																	
1	2017	AF		256	256	0																								0			
1	2017	FMS (+)		306	306	0																								0			
1	2017	NAVY (+)		144	144	0																								0			
1	2017	Total		706	706	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2018	AF		185	185	0																								0			
1	2018	FMS (+)		279	279	0																								0			
1	2018	NAVY (+)		120	120	0																								0			
1	2018	Total		584	584	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2019	AF		187	187	0																								0			
1	2019	FMS (+)		434	434	0																								0			
1	2019	NAVY (+)		167	167	0																								0			
1	2019	Total		788	788	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2020	AF		220	220	0																								0			
1	2020	FMS (+)		242	242	0																								0			
1	2020	NAVY (+)		192	192	0																								0			
1	2020	Total		654	654	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2021	AF		374	188	186	93	-	-	93																				0			
1	2021	FMS (+)		350	174	176	88	-	-	88																				0			
1	2021	NAVY (+)		315	160	155	80	-	-	75																				0			
1	2021	Total		1,039	522	517	261	-	-	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				

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

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: MAMRA0 / AMRAAM	Item Number / Title [DODIC]: AMRAAM
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	400 ⁽¹⁾	1,200	1	6	25	31	0	0	0	0
2	Raytheon Missile Systems - Tucson, AZ	400	400	1,200	1	6	25	31	0	0	0	0

(±) 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:

⁽¹⁾ MSR for 2021: 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 2021: Factory capacity enables production of 1,200 missiles.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	3,104	3,859	548	3,969	4,517	641	654	69	69	-	12,913
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	265.765	299.631	40.129	143.420	183.549	49.410	50.739	5.502	5.601	-	860.197
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	265.765	299.631	40.129	143.420	183.549	49.410	50.739	5.502	5.601	-	860.197
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	265.765	299.631	40.129	143.420	183.549	49.410	50.739	5.502	5.601	-	860.197
<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>)	-	0.077	0.070	0.070	0.031	0.036	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	0.086	0.078	0.073	0.036	0.041	0.077	0.078	0.080	0.081	-	0.067

Description:

FY2019 funding totals include \$255.000M appropriated for Overseas Contingency Operations.
 FY2020 funding totals include \$180.771M appropriated for Overseas Contingency Operations.

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. 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/Material Shortages/Obsolescence 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 FY2008, HELLFIRE missiles were procured under the Predator PE 0305219F.

Funding for this exhibit contained in PE 0201109F.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / -	3,104 / 265.765	3,859 / 299.631	548 / 40.129	3,969 / 143.420	4,517 / 183.549
P-40	Total Gross/Weapon System Cost				- / -	3,104 / 265.765	3,859 / 299.631	548 / 40.129	3,969 / 143.420	4,517 / 183.549

*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:
 FY2021 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.

FY2021 budget request will procure 2497 missiles, to include 1949 missiles using OCO funding, needed to replenish HELLFIRE inventory levels. Quantities are based on current estimated prices for purchase through the Army.

Note: Budgeted Quantities should be 1949 for FY2021 OCO.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force											Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2						P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile					Item Number / Title [DODIC]: Predator Hellfire Missile				
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:									
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total						
Procurement Quantity (Units in Each)				-	3,104	3,859	548	3,969	4,517						
Gross/Weapon System Cost (\$ in Millions)				-	265.765	299.631	40.129	143.420	183.549						
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-						
Net Procurement (P-1) (\$ in Millions)				-	265.765	299.631	40.129	143.420	183.549						
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-						
Total Obligation Authority (\$ in Millions)				-	265.765	299.631	40.129	143.420	183.549						
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-	-	-	-	-	-						
Gross/Weapon System Unit Cost (\$ in Millions)				-	0.086	0.078	0.073	0.036	0.041						

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
AGM-114 - All-up-Rounds ^(†)	-	-	-	0.077	3,104	238.240	0.070	3,859	270.130	0.070	548	38.224	0.069	1,771	122.520	0.069	2,319	160.744
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	238.240	-	-	270.130	-	-	38.224	-	-	122.520	-	-	160.744
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	-	-	-	238.240	-	-	270.130	-	-	38.224	-	-	122.520	-	-	160.744
Hardware - Hardware End Item Cost																		
Recurring Cost																		
First Destination Shipping charges	-	-	-	-	-	1.800	-	-	1.900	-	-	1.900	-	-	-	-	-	1.900
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.800	-	-	1.900	-	-	1.900	-	-	-	-	-	1.900
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	1.800	-	-	1.900	-	-	1.900	-	-	-	-	-	1.900
Support - Support End Item Cost																		
Program Management Administration	-	-	-	-	-	14.144	-	-	15.180	-	-	0.002	-	-	11.495	-	-	11.497
Production Engineering Support	-	-	-	-	-	11.581	-	-	12.421	-	-	0.003	-	-	9.405	-	-	9.408
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	25.725	-	-	27.601	-	-	0.005	-	-	20.900	-	-	20.905
Gross/Weapon System Cost	-	-	-	0.086	3,104	265.765	0.078	3,859	299.631	0.073	548	40.129	0.036	3,969	143.420	0.041	4,517	183.549

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile	Item Number / Title [DODIC]: Predator Hellfire Missile
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile	Item Number / Title [DODIC]: Predator Hellfire Missile
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AGM-114 - All-up-Rounds ^(†)		2019	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2019	Oct 2021	3,104	0.077	Y		Dec 2016
AGM-114 - All-up-Rounds ^(†)		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 ^(†)		2021	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2021	Oct 2023	548	0.070	Y		Dec 2018
AGM-114 - All-up-Rounds ^(†)	✓	2021	Lockheed Missile and Fire Ctrl / Orlando FL	MIPR	Redstone Arsenal, AL	Sep 2021	Oct 2023	1,771	0.069	Y		Dec 2018

^(†) 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.

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile	Item Number / Title [DODIC]: Predator Hellfire Missile
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
AGM-114 - All-up-Rounds																															
	1	2019	AF	3,104	0	3,104	-	-	-	-	-	-	-	-	-	-	-	-	258	258	258	258	259	259	259	259	259	259	259	0	
	1	2020	AF	3,859	0	3,859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,859	
	1	2020	ARMY (#)	5,112	0	5,112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,112	
	1	2020	Total	8,971	0	8,971	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,971	
	1	2021	AF	548	0	548														A -	-	-	-	-	-	-	-	-	-	-	548
✓	1	2021	AF	1,771	0	1,771														A -	-	-	-	-	-	-	-	-	-	-	1,771
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile	Item Number / Title [DODIC]: Predator Hellfire Missile
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
AGM-114 - All-up-Rounds																															
	1	2019	AF	3,104	3,104	0																							0		
	1	2020	AF	3,859	0	3,859	321	321	321	321	321	322	322	322	322	322													0		
	1	2020	ARMY (#)	5,112	0	5,112	427	427	426	426	426	426	426	426	426	425	425												0		
	1	2020	Total	8,971	0	8,971	748	748	747	747	747	748	748	748	748	747	747	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2021	AF	548	0	548	-	-	-	-	-	-	-	-	-	-	-	45	45	45	45	46	46	46	46	46	46	46	46	0	
✓	1	2021	AF	1,771	0	1,771	-	-	-	-	-	-	-	-	-	-	-	147	147	147	147	147	148	148	148	148	148	148	148	0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Air Force	Date: February 2020
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Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: PRDTA2 / Predator Hellfire Missile	Item Number / Title [DODIC]: Predator Hellfire Missile
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	3,600	11,000	0	0	0	0	0	0	12	25	37

Remarks:

Yearly Minimum Sustainment Rate (MSR) = 3,600 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 therefore delivery schedule may exceed 12 months.

(±) 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).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	28,278	5,743	7,078	1,179	1,283	2,462	1,158	1,180	2,435	2,435	-	50,769
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,544.731	209.332	273.288	45.475	50.352	95.827	45.482	45.473	91.412	93.050	0.000	2,398.595
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,544.731	209.332	273.288	45.475	50.352	95.827	45.482	45.473	91.412	93.050	0.000	2,398.595
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,544.731	209.332	273.288	45.475	50.352	95.827	45.482	45.473	91.412	93.050	0.000	2,398.595

(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>)	0.051	0.036	0.038	0.036	0.039	0.038	0.036	0.036	0.036	0.036	-	0.045
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.055	0.036	0.039	0.039	0.039	0.039	0.039	0.039	0.038	0.038	-	0.047

Description:

PY funding totals include \$140.724M appropriated for Overseas Contingency Operations.

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. 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.

Integrated platforms include: F-15E, F-22A, AC-130W/J, and F-16C/D Block 30/40/50.

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 production Diminishing Manufacturing Sources (DMS)/Material Shortage (MS)/Obsolescence issues, for example the integration of a qualified M-Code capable GPS receiver. 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) StormBreaker quantities and Obligation Authority were included in SDB000 for FY18 and earlier and will continue to show SDB II undelivered assets for Lots 2-4 on the P-21. Reference BP20 SDB002 for the SDB II FY19 and out-years.

Funding for this exhibit contained in PE 0207327F.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	P-5a, P-21	A		28,278 / 1,544.731	5,743 / 209.332	7,078 / 273.288	1,179 / 45.475	1,283 / 50.352	2,462 / 95.827
P-40	Total Gross/Weapon System Cost				28,278 / 1,544.731	5,743 / 209.332	7,078 / 273.288	1,179 / 45.475	1,283 / 50.352	2,462 / 95.827

*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:
 FY2021 budget request includes funding totals of \$45.475M of Base and \$50.352M of OCO appropriated for SDB I. This funding will procure 1,179 weapons with Base funding and 1,283 weapons with OCO funding.

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.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
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

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	28,278	5,743	7,078	1,179	1,283	2,462
Gross/Weapon System Cost (\$ in Millions)	1,544.731	209.332	273.288	45.475	50.352	95.827
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,544.731	209.332	273.288	45.475	50.352	95.827
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,544.731	209.332	273.288	45.475	50.352	95.827

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

Initial Spares (\$ in Millions)	0.000	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.055	0.036	0.039	0.039	0.039	0.039

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
SDB Increment II All Up Round Weapon	0.152	1,276	193.938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weapon Containers	-	-	3.918	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDB Increment I ^(†)	0.045	26,502	1,183.540	0.036	5,743	206.748	0.036	6,878	247.608	0.036	1,179	42.444	0.036	1,398	50.352	0.036	2,577	92.796
Focused Lethality Munition	0.100	500	50.000	-	-	-	0.100	200	20.000	-	-	-	-	-	-	-	-	-
SDB Increment II Test Vehicle	-	-	9.154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1,440.550</i>	-	-	<i>206.748</i>	-	-	<i>267.608</i>	-	-	<i>42.444</i>	-	-	<i>50.352</i>	-	-	<i>92.796</i>
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	<i>1,440.550</i>	-	-	<i>206.748</i>	-	-	<i>267.608</i>	-	-	<i>42.444</i>	-	-	<i>50.352</i>	-	-	<i>92.796</i>
Support - Support End Item Cost																		
Training Equipment	-	-	2.920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operational Flight Program Updates & Test	-	-	21.250	-	-	-	-	-	0.780	-	-	-	-	-	-	-	-	-
Logistics Support	-	-	0.444	-	-	0.060	-	-	0.060	-	-	0.060	-	-	-	-	-	0.060
Production Testing	-	-	32.822	-	-	0.624	-	-	1.000	-	-	0.954	-	-	-	-	-	0.954
PMA Contractor Services	-	-	7.174	-	-	1.300	-	-	1.300	-	-	1.300	-	-	-	-	-	1.300
PMA Other Government Costs	-	-	3.021	-	-	0.300	-	-	0.360	-	-	0.360	-	-	-	-	-	0.360
Obsolescence Contracts	-	-	36.550	-	-	0.300	-	-	2.180	-	-	0.357	-	-	-	-	-	0.357

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
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					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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>	-	-	104.181	-	-	2.584	-	-	5.680	-	-	3.031	-	-	-	-	-	3.031
Gross/Weapon System Cost	0.055	28,278	1,544.731	0.036	5,743	209.332	0.039	7,078	273.288	0.039	1,179	45.475	0.039	1,283	50.352	0.039	2,462	95.827

Remarks:

FY2021 Base and OCO funding procures SDB I weapons.

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

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
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDB Increment I ^(†)		2017	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Dec 2017	Oct 2018	4,195	0.036	Y		Jan 2017
SDB Increment I ^(†)		2018	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2018	Sep 2019	6,464	0.035	Y		Jan 2018
SDB Increment I ^(†)		2019	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Apr 2021	5,743	0.036	Y		Jul 2018
SDB Increment I ^(†)		2020	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2020	Apr 2022	6,878	0.036	Y		Jan 2020
SDB Increment I ^(†)		2021	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2021	Apr 2023	1,179	0.036	Y		Jan 2021
SDB Increment I ^(†)	✓	2021	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2021	Apr 2023	1,398	0.036	Y		Jan 2021

^(†) indicates the presence of a P-21

Remarks:

1. SDB I replenishment production began in FY15. Lot 11 was awarded in November 2015 for 299 weapons. Lot 12 Uninitialized Contract Action (UCA) was awarded September 2016 and Initialized in December 2017 for 3,244 weapons. Lot 13 was awarded in December 2017 for 7,448 weapons.
2. 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.

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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 2018														Fiscal Year 2019														BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T 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: 15843																																			
1	2017	AF ⁽¹⁾	4,195	0	4,195			A	-	-	-	-	-	-	-	-	-	700	350	350	350	350	350	350	350	350	350	345	0						
1	2017	FMS ^(*) (2)	552	0	552			A	-	-	-	-	-	-	-	-	-	92	46	46	46	46	46	46	46	46	46	46	0						
1	2017	Total	4,747	0	4,747			-	-	-	-	-	-	-	-	-	-	792	396	396	396	396	396	396	396	396	396	391	0						
1	2018	AF	6,464	0	6,464																							538	5,926						
1	2018	FMS ^(*)	280	0	280																							23	257						
1	2018	Total	6,744	0	6,744																							561	6,183						
1	2019	AF	5,743	0	5,743																									5,743					
1	2019	FMS ^(*)	1,818	0	1,818																									1,818					
1	2019	Total	7,561	0	7,561																									7,561					
1	2020	AF	6,878	0	6,878																									6,878					
1	2020	FMS ^(*)	922	0	922																									922					
1	2020	Total	7,800	0	7,800																									7,800					
1	2021	AF	1,179	0	1,179																									1,179					
✓ 1	2021	AF	1,398	0	1,398																									1,398					
								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	A	E	C	O	V	E	A	E	A	P	A	U	U	A	S			
								T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P				

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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: 15843																																	
1	2017	AF ⁽¹⁾	4,195	4,195	0																												0
1	2017	FMS ^(*) (2)	552	552	0																											0	
1	2017	Total	4,747	4,747	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2018	AF	6,464	538	5,926	538	538	538	538	538	538	538	538	538	546																0		
1	2018	FMS ^(*)	280	23	257	23	23	23	23	23	23	23	24	24	24	24															0		
1	2018	Total	6,744	561	6,183	561	561	561	561	561	561	561	562	562	562	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2019	AF	5,743	0	5,743							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,869		
1	2019	FMS ^(*)	1,818	0	1,818							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900		
1	2019	Total	7,561	0	7,561							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,769		
1	2020	AF	6,878	0	6,878											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,878		
1	2020	FMS ^(*)	922	0	922											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	922		
1	2020	Total	7,800	0	7,800											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,800		
1	2021	AF	1,179	0	1,179																										A -	-	1,179
✓ 1	2021	AF	1,398	0	1,398																										A -	-	1,398

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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: 15843																															
1	2017	AF ⁽¹⁾	4,195	4,195	0																							0			
1	2017	FMS ^(#) (2)	552	552	0																							0			
1	2017	Total	4,747	4,747	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2018	AF	6,464	6,464	0																							0			
1	2018	FMS ^(#)	280	280	0																							0			
1	2018	Total	6,744	6,744	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2019	AF	5,743	2,874	2,869	479	479	479	479	479	474																	0			
1	2019	FMS ^(#)	1,818	918	900	150	150	150	150	150	150																	0			
1	2019	Total	7,561	3,792	3,769	629	629	629	629	629	624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1	2020	AF	6,878	0	6,878	-	-	-	-	-	-	573	573	573	573	573	573	573	573	573	573	573	575					0			
1	2020	FMS ^(#)	922	0	922	-	-	-	-	-	-	76	76	77	77	77	77	77	77	77	77	77	77					0			
1	2020	Total	7,800	0	7,800	-	-	-	-	-	-	649	649	650	650	650	650	650	650	650	650	652	-	-	-	-	-	0			
1	2021	AF	1,179	0	1,179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99	99	98	98	98	588	
✓ 1	2021	AF	1,398	0	1,398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117	117	117	117	117	696		
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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 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
SDB Increment I																															
Prior Years Deliveries: 15843																															
	1	2017	AF ⁽¹⁾	4,195	4,195	0																							0		
	1	2017	FMS ^(#) (2)	552	552	0																							0		
	1	2017	Total	4,747	4,747	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2018	AF	6,464	6,464	0																							0		
	1	2018	FMS ^(#)	280	280	0																							0		
	1	2018	Total	6,744	6,744	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2019	AF	5,743	5,743	0																							0		
	1	2019	FMS ^(#)	1,818	1,818	0																							0		
	1	2019	Total	7,561	7,561	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2020	AF	6,878	6,878	0																							0		
	1	2020	FMS ^(#)	922	922	0																							0		
	1	2020	Total	7,800	7,800	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2021	AF	1,179	591	588	98	98	98	98	98																		0		
✓	1	2021	AF	1,398	702	696	116	116	116	116	116																		0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

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
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	11	20	31

Remarks:
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).

Footnotes:

(1) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2018 loaded in the month of first delivery.

(2) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2018 loaded in the month of first delivery.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	510	1,175	1,133	-	1,133	1,385	1,416	1,282	998	2,825	10,724
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	100.861	183.279	273.272	-	273.272	307.835	321.531	263.254	223.226	674.957	2,348.215
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	100.861	183.279	273.272	-	273.272	307.835	321.531	263.254	223.226	674.957	2,348.215
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	100.861	183.279	273.272	-	273.272	307.835	321.531	263.254	223.226	674.957	2,348.215

(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>)	-	0.122	0.136	0.195	-	0.195	0.200	0.216	0.201	0.216	0.233	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	0.198	0.156	0.241	-	0.241	0.222	0.227	0.205	0.224	0.239	0.219

Description:

1. 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 ordinance 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.

1a. 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. Initial Operational Capability (IOC) for the F-15E is scheduled for FY 2020. Early Operational Capability (EOC) on the DoN's F-35B is scheduled for FY 2022 and IOC for F35B/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.

1b. 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. Funds may also be used to resolve production Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues through studies, bridge buys, life-of-type buys, supplier/parts replacement, re-designs and re-qualification.

1c. 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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
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		
<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>Funding for this exhibit contained in PE 0207327F.</p> <p>Reference BP20 SDB000 for SDB II FY18 and prior years.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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 / 100.861	1,175 / 183.279	1,133 / 273.272	- / -	1,133 / 273.272
P-40	Total Gross/Weapon System Cost				- / -	510 / 100.861	1,175 / 183.279	1,133 / 273.272	- / -	1,133 / 273.272

*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 request includes funding for SDB II weapons, weapon containers, 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 Weapon Load Crew Trainers (WLCT) and Conventional Maintenance Munitions Trainers (CMMT). FY 2021 funding supports the sole source Lot 6 production contract which includes an option for Lot 7 weapons. The Lot 6 contract and Lot 7 option are inclusive of both USAF and DoN production quantities. SDB II FY 2021 quantity is 1,133 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 was part of SDB I prior to FY 2019.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force					Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2			P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II			Item Number / Title [DODIC]: SMALL DIAMETER BOMB II		
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)			-	510	1,175	1,133	-	1,133
Gross/Weapon System Cost (\$ in Millions)			-	100.861	183.279	273.272	-	273.272
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			-	100.861	183.279	273.272	-	273.272
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			-	100.861	183.279	273.272	-	273.272
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)			-	0.198	0.156	0.241	-	0.241

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 - Small Diameter Bomb II Cost																		
Recurring Cost																		
SDB Increment II All Up Round Weapon ^(†)	-	-	-	0.120	510	61.434	0.130	1,175	152.322	0.186	1,133	210.717	-	-	-	0.186	1,133	210.717
Weapon Containers	-	-	-	-	-	0.690	-	-	4.786	-	-	6.648	-	-	-	-	-	6.648
Test Vehicle	-	-	-	-	-	0.000	-	-	2.969	-	-	3.048	-	-	-	-	-	3.048
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	62.124	-	-	160.077	-	-	220.413	-	-	-	-	-	220.413
<i>Subtotal: Flyaway - Small Diameter Bomb II Cost</i>	-	-	-	-	-	62.124	-	-	160.077	-	-	220.413	-	-	-	-	-	220.413
Support - Small Diameter Bomb II Cost																		
Training Equipment	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Operational Flight Program Updates & Test	-	-	-	-	-	8.141	-	-	6.283	-	-	16.947	-	-	-	-	-	16.947
Logistics Support	-	-	-	-	-	3.475	-	-	1.189	-	-	1.233	-	-	-	-	-	1.233
Production Testing	-	-	-	-	-	6.494	-	-	2.586	-	-	22.875	-	-	-	-	-	22.875
PMA Contractor Services	-	-	-	-	-	3.617	-	-	5.570	-	-	4.097	-	-	-	-	-	4.097
PMA Other Government Costs	-	-	-	-	-	0.923	-	-	0.898	-	-	0.917	-	-	-	-	-	0.917
Product Support	-	-	-	-	-	16.087	-	-	6.676	-	-	6.790	-	-	-	-	-	6.790
<i>Subtotal: Support - Small Diameter Bomb II Cost</i>	-	-	-	-	-	38.737	-	-	23.202	-	-	52.859	-	-	-	-	-	52.859
Gross/Weapon System Cost	-	-	-	0.198	510	100.861	0.156	1,175	183.279	0.241	1,133	273.272	-	-	-	0.241	1,133	273.272

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II	Item Number / Title [DODIC]: SMALL DIAMETER BOMB II
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:
Remarks: PMA Other Government Costs: Travel, Government Purchase card (GPC), and Central Support Product Support: DMSMS Activities, Interim Contractor Support (Raytheon), Encryption Chips, Cost Reduction and Shipping Reference BP20 SDB000 for SDB II FY18 and prior years. SDB II was part of SDB I prior to FY 2019. (t) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II	Item Number / Title [DODIC]: SMALL DIAMETER BOMB II
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDB Increment II All Up Round Weapon ^(†)		2019	Raytheon / Tucson AZ	SS / FFP	AFLCMC/PK Eglin AFB, FL	Dec 2018	Sep 2020	510	0.120	N	Aug 2018	Oct 2009
SDB Increment II All Up Round Weapon ^(†)		2020	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2020	Sep 2021	1,175	0.130	N	Aug 2019	Oct 2018
SDB Increment II All Up Round Weapon ^(†)		2021	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jan 2021	Sep 2022	1,133	0.186	N	Aug 2020	Oct 2019

^(†) 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 Lots 6-7 (FY 2020-FY 2021) will be negotiated as Fixed Price Incentive Firm contracts.
4. SDB II unit cost is expected to increase with the contract award of Lot 6 in FY2020 following the Nunn-McCurdy significant unit cost breach and decreased Navy quantities.

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II	Item Number / Title [DODIC]: SMALL DIAMETER BOMB II
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												B A L A N C E		
O C C #	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 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	467			
1		2019	NAVY (+)	750	0	750			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	687			
1		2019	Total	1,260	0	1,260			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106	1,154				
1		2020	AF	1,175	0	1,175																							1,175			
1		2020	NAVY (+)	750	0	750																							750			
1		2020	Total	1,925	0	1,925																							1,925			
1		2021	AF	1,133	0	1,133																							1,133			
1		2021	NAVY (+)	460	0	460																							460			
1		2021	Total	1,593	0	1,593																							1,593			
									O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2 **P-1 Line Item Number / Title:** SDB002 / SMALL DIAMETER BOMB II **Item Number / Title [DODIC]:** 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	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			
SDB Increment II All Up Round Weapon																																	
1	2019	AF		510	43	467	43	43	43	43	43	43	43	43	43	43													0				
1	2019	NAVY (‡)		750	63	687	63	63	63	63	63	63	63	63	63	57													0				
1	2019	Total		1,260	106	1,154	106	106	106	106	106	106	106	106	94	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2020	AF		1,175	0	1,175	-	-	-	-	-	-	-	-	-	-	98	98	98	98	98	98	98	98	98	98	97	0					
1	2020	NAVY (‡)		750	0	750	-	-	-	-	-	-	-	-	-	-	63	63	63	63	63	63	63	63	63	63	57	0					
1	2020	Total		1,925	0	1,925	-	-	-	-	-	-	-	-	-	-	161	161	161	161	161	161	161	161	161	161	154	0					
1	2021	AF		1,133	0	1,133				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	1,039				
1	2021	NAVY (‡)		460	0	460				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	422				
1	2021	Total		1,593	0	1,593				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	1,461				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II	Item Number / Title [DODIC]: SMALL DIAMETER BOMB II
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023										Fiscal Year 2024										BALANCE					
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 2	BAL D U E A S O F 1 O C T	Calendar Year 2023										Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R		M A Y	J U N	J U L	A U G	S E P
SDB Increment II All Up Round Weapon																															
	1	2019	AF	510	510	0																							0		
	1	2019	NAVY (+)	750	750	0																							0		
	1	2019	Total	1,260	1,260	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2020	AF	1,175	1,175	0																							0		
	1	2020	NAVY (+)	750	750	0																							0		
	1	2020	Total	1,925	1,925	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2021	AF	1,133	94	1,039	94	94	94	94	94	94	95	95	95	95													0		
	1	2021	NAVY (+)	460	38	422	38	38	38	38	38	38	38	38	40	40													0		
	1	2021	Total	1,593	132	1,461	132	132	132	132	132	133	133	133	135	135	-	-	-	-	-	-	-	-	-	-	-	-	0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Air Force	Date: February 2020
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Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2	P-1 Line Item Number / Title: SDB002 / SMALL DIAMETER BOMB II	Item Number / Title [DODIC]: SMALL DIAMETER BOMB II
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	1,200	1,925	2,119	0	0	0	0	0	0	4	20	24

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).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
3020F: Missile Procurement, Air Force / BA 02: Other Missiles / BSA 5: Industrial Facilities

P-1 Line Item Number / Title:
000042 / Industr'l Preparedns/Pol Prevention

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.787	0.801	0.814	-	0.814	0.831	0.847	0.863	0.879	-	5.822
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.787	0.801	0.814	-	0.814	0.831	0.847	0.863	0.879	-	5.822
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.787	0.801	0.814	-	0.814	0.831	0.847	0.863	0.879	-	5.822

(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:

FY2021 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. In FY2021 there are also funds for space-related industrial base assessments (MPC 6000).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	41.778	9.841	5.000	3.458	-	3.458	82.752	109.286	146.327	144.290	359.410	902.142
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	0.000	0.000	0.000	-	0.000	4.100	14.497	43.450	23.000	38.088	123.135
Net Procurement (P-1) (<i>\$ in Millions</i>)	41.778	9.841	5.000	3.458	-	3.458	78.652	94.789	102.877	121.290	321.322	779.007
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	4.100	14.497	43.450	-	43.450	23.000	19.994	18.094	0.000	-	123.135
Total Obligation Authority (<i>\$ in Millions</i>)	41.778	13.941	19.497	46.908	-	46.908	101.652	114.783	120.971	121.290	321.322	902.142

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	8.600	8.600
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.

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 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 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 693 Mk21/W87-0 operationally-configured replacement fuzes. Fuzes will be delivered and placed in supply for installation by organizational/intermediate maintenance on a schedule to be determined by USSTRATCOM and AFGSC.

Life of Type Buy (LOTB)

FY19 concluded material and component LOTB supporting both the Mk21/W87-0 and future Mk21A/W87-1 needs.

Long Lead Production

The ICBM Fuze Modernization program continues to require Advanced Procurement authority in FY21 to procure long lead items (Model XI sensor hardware, optoisolators, circuit cards, heterojunction bipolar transistors (HBTs), Commercial Off-the-Shelf/Government Off-the-Shelf (COTS/GOTS) materials and components, etc.). Advanced procurement needs increased due to an increased number of materials and piece parts with long lead procurement times. Failure to procure the parts will result in delayed fuze production and fielding activities. The production lead time of 41 months is an increase from 31 months previously. The increase is due to delays in the Joint Navy (W88) and Air Force (B61-12) programs. The delay in these programs lengthens the production flow time at KCNSC. As programs near the end of their production and capacity increases, the Mk21 fuze program's lead times will decrease back to 31 months.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / 41.778	- / 9.841	- / 5.000	- / 3.458	- / 0.000	- / 3.458
P-40	Total Gross/Weapon System Cost				- / 41.778	- / 9.841	- / 5.000	- / 3.458	- / -	- / 3.458

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	5915 / ICBM Fuze Modernization (Service Life Extension)		B		- / 82.752	- / 109.286	- / 146.327	- / 144.290	- / 359.410	- / 902.142
P-40	Total Gross/Weapon System Cost				- / 82.752	- / 109.286	- / 146.327	- / 144.290	- / 359.410	- / 902.142

*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.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD						Modification Number / Title: 5915 / ICBM Fuze Modernization		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	41.778	9.841	5.000	3.458	0.000	3.458	82.752	109.286	146.327	144.290	359.410	902.142
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	4.100	14.497	43.450	23.000	38.088	123.135
Net Procurement (P-1) (<i>\$ in Millions</i>)	41.778	9.841	5.000	3.458	0.000	3.458	78.652	94.789	102.877	121.290	321.322	779.007
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	4.100	14.497	43.450	-	43.450	23.000	19.994	18.094	-	-	123.135
Total Obligation Authority (<i>\$ in Millions</i>)	41.778	13.941	19.497	46.908	0.000	46.908	101.652	114.783	120.971	121.290	321.322	902.142
<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>)	-	-	-	-	-	-	-	-	-	-	8.600	8.600
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 693 Mk21/W87-0 replacement fuzes. Fuzes will be delivered and placed in supply for installation by organizational/intermediate maintenance on a schedule to be determined by USSTRATCOM and AFGSC.

Program Rebaseline

The ICBM Fuze Modernization Program requires a rebaseline due to funding reduction and capacitor redesign issue. The program rebaseline has shifted funding needs into different fiscal years and an immediate adjustment is needed for FY21. Rebaseline highlighted the need to order magnet housing, bellows, wound coils, and coil supports earlier than previously planned in order to meet Mod XI production requirement. These components' production cannot meet the same production rate of the fuze assembly, requiring earlier funding, using Advance Procurement (AP). Rebaseline moved major milestones out up to 22 months (Final Design Review, MS C, FPU, and Production Quantities). The schedule slip has delayed the need for Full Funding, but has increased the need for AP. Changes to the production profile to the rebaseline in FY22 and beyond will be reflected in future budget submissions. The USAF's Mk21A Re-entry Vehicle and Ground Based Strategic Deterrent (GBSD) programs rely on fuze production units for test and operational use. Increase in AP is necessary to keep fuze production aligned with Mk21A Re-entry Vehicle and GBSD schedules.

Long Lead Procurement Adjustments

Advance Procurement needs have increased on the program over earlier budget estimates. The increase is due to the long lead times of parts of magnet housing, bellows, wound coils, and coil supports; and delays in the Joint Navy (W88) and Air Force (B61-12) programs. Increases in the quantity of items with long lead times (Model XI sensor hardware, optoisolators, circuit cards, HBTs, COTS/GOTS materials and components, etc) requires purchases of parts sooner than anticipated. Failure to procure the parts will result in program schedule slip and potentially delay in fielding fuzes. The production lead time of 41 months is an increase from 31 months previously. The delay in these programs lengthens the production flow time at KCNSC. AP funds are used to execute jointly with the W88 and the B61-12 per Joint Operating Agreement between programs and NNSA; this strategy takes advantage of EOQ orders and provides a pool of interchangeable, qualified, and certified parts for these programs.

FY15-19 non-recurring costs include LOTB critical to affordably buy 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 (NNSA), Kansas City National Security Campus (KCNSC) for use in producing common component modules for the Air Force and Navy fuzes. Some component modules will be entirely

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD	Modification Number / Title: 5915 / ICBM Fuze Modernization
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
<p>interchangeable between the Services while others will have interchangeable sub-assemblies. Pre-production planning activities began in FY18. There will be three Production Readiness Reviews (PRR) and two Product Definition and Documentation Reviews (PDDR). The purpose of the PRR is to evaluate the manufacturing system readiness. The purpose of the PDDR is to ensure the requirements necessary for production are in place and mapped from design to production.</p> <p>Milestone/Development Status</p> <p>The program entered Phase 6.3 Developmental Engineering in FY13 and completed in FY19. The first flight test was performed in FY19 and the second flight test will be executed in FY20. Phase 6.4 Production Engineering will complete development in FY24. The program will enter Phase 6.5 First Production in FY24. Research, Development, Test and Evaluation (RDT&E) is contained in Program Element 0604933F. The program is tailored to use the joint Department of Defense (DoD)-Department of Energy (DOE) Phase 6.X processes for routine nuclear stockpile activities to align with Navy and NNSA operations.</p>		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD					Modification Number / Title: 5915 / ICBM Fuze Modernization			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Service Life Extension				Related RDT&E PEs: 0604933F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
RDT&E PE #													
0604933F	- / 524.438	- / 124.457	- / 161.199	- / 167.099	- / -	- / 167.099	- / 104.657	- / 20.503	- / 2.067	- / 2.105	- / 0.000	- / 1,106.525	
Procurement													
<i>Modification Item 1 of 1:</i> ICBM Fuze													
B Kits													
Recurring													
ICBM Fuze:EQUIPMENT Group B (Active)	- / -	- / 0.000	- / 5.000	- / 3.458	- / -	- / 3.458	80 / 76.512	106 / 92.350	118 / 112.560	121 / 133.486	268 / 281.374	693 / 704.740	
<i>Subtotal: Recurring</i>	- / -	- / 0.000	- / 5.000	- / 3.458	- / -	- / 3.458	- / 76.512	- / 92.350	- / 112.560	- / 133.486	- / 281.374	- / 704.740	
<i>Subtotal: ICBM Fuze</i>	- / -	- / 0.000	- / 5.000	- / 3.458	- / -	- / 3.458	- / 76.512	- / 92.350	- / 112.560	- / 133.486	- / 281.374	- / 704.740	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 0.000	- / 5.000	- / 3.458	- / -	- / 3.458	- / 76.512	- / 92.350	- / 112.560	- / 133.486	- / 281.374	- / 704.740	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 41.778	- / 9.841	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 51.619	
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.864	- / 2.426	- / 4.139	- / 3.687	- / 12.253	- / 24.369	
SIM/TRAINER	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 9.546	25 / 21.470	- / -	- / -	40 / 31.016	
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.131	- / 3.096	- / 4.183	- / 3.951	- / 47.736	- / 62.097	
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.245	- / 1.868	- / 3.975	- / 3.166	- / 18.047	- / 28.301	
<i>Subtotal: Support</i>	- / 41.778	- / 9.841	- / -	- / -	- / -	- / -	- / 6.240	15 / 16.936	25 / 33.767	- / 10.804	- / 78.036	40 / 197.402	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	41.778	9.841	5.000	3.458	0.000	3.458	82.752	109.286	146.327	144.290	359.410	902.142	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD		Modification Number / Title: 5915 / ICBM Fuze Modernization		
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:			
Modification Item 1 of 1: ICBM Fuze							
Manufacturer Information							
Manufacturer Name: Kansas City National Security Campus				Manufacturer Location: Kansas City, KS			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 41			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates				Feb 2022	Feb 2023	Feb 2024	Feb 2025
Delivery Dates				Jul 2025	Jul 2026	Jul 2027	Jul 2028
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 693		

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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
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Program Elements for Code B Items: 0604933F	Other Related Program Elements: 0604933F
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Line Item MDAP/MAIS Code: 498

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	4.100	14.497	43.450	-	43.450	23.000	19.994	18.094	0.000	-	123.135
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	4.100	14.497	43.450	-	43.450	23.000	19.994	18.094	0.000	-	123.135
Total Obligation Authority (<i>\$ in Millions</i>)	-	4.100	14.497	43.450	-	43.450	23.000	19.994	18.094	0.000	-	123.135

Description:

FY21-FY24 information is for materials and piece parts for buildup of subcomponents for the AFAs delivered in FY24-27. Advanced procurement needs increased due to an increased number of materials and piece parts with long lead procurement times. Failure to procure the parts will result in delayed fuze production and fielding activities. It may also cause DMSMS issues as suppliers move to projects that are fully funded.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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
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Program Elements for Code B Items: 0604933F	Other Related Program Elements: 0604933F
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Line Item MDAP/MAIS Code: 498

Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	- / -	- / 43.450
P-40	Total Gross/Weapon System Cost			- / -	- / 4.100	- / 14.497	- / 43.450	- / -	- / 43.450

Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	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			- / 23.000	- / 19.994	- / 18.094	- / -	- / -	- / 123.135
P-40	Total Gross/Weapon System Cost			- / 23.000	- / 19.994	- / 18.094	- / 0.000	- / -	- / 123.135

*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 items identified and included on this sheet are the long lead items with lead time greater than 52 weeks as identified in the parts analysis study.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): PB 2021 Air Force										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD						P-3a Number / Title: 5915 / ICBM Fuze Modernization			
First System (2021) Award Date: May 2019		First System (2021) Completion Date: July 2022				Interval Between Systems: 1 Months						
ICBM Fuze Modernization		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2019 <i>(Each)</i>	FY 2020 <i>(Each)</i>	FY 2021 <i>(Each)</i>	FY 2022 <i>(Each)</i>	FY 2023 <i>(Each)</i>	FY 2024 <i>(Each)</i>	FY 2025 <i>(Each)</i>	To Complete <i>(Each)</i>	Total <i>(Each)</i>
Quantity		41 ⁽¹⁾	-	-	-	-	-	-	-	-	-	-
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2019 <i>(\$ M)</i>	FY 2020 <i>(\$ M)</i>	FY 2021 <i>(\$ M)</i>	FY 2022 <i>(\$ M)</i>	FY 2023 <i>(\$ M)</i>	FY 2024 <i>(\$ M)</i>	FY 2025 <i>(\$ M)</i>	To Complete <i>(\$ M)</i>	Total <i>(\$ M)</i>
CFE												
ICBM FUZE MOD Hardware		12	-	4.100	14.497	43.450	23.000	19.994	18.094	0.000	-	123.135
<i>Total: CFE</i>			-	4.100	14.497	43.450	23.000	19.994	18.094	0.000	-	123.135
Total Advance Procurement/Obligation Authority			-	4.100	14.497	43.450	23.000	19.994	18.094	-	-	123.135

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30FLH / ICBM FUZE MOD	P-3a Number / Title: 5915 / ICBM Fuze Modernization
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Cost Elements	QPA <i>(Each)</i>	FY 2021					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2021 Qty <i>(Each)</i>	For FY	
CFE							
ICBM FUZE MOD Hardware	-	41	0.368	May 2021	118		43.450
<i>Total: CFE</i>							43.450
Total Advance Procurement/Obligation Authority							43.450

Description:
FY21-FY24 information is for materials and piece parts for buildup of subcomponents for the AFAs delivered in FY24-27. Advanced Procurement needs have increased on the program over earlier budget estimates. Increases in the quantity of items with long lead times (Model XI sensor hardware, optoisolators, circuit cards, HBTs, etc) requires purchases of parts sooner than anticipated. Failure to procure the parts will result in program schedule slip and potentially delay in fielding fuzes. It may also cause DMSMS issues as suppliers move to projects that are fully funded. Begin long lead hardware purchases for AFA production.

Footnotes:
(1) The production lead time has increased to 41 months. The increase is due to delays in the Joint Navy (W88) and Air Force (B61-12) programs. The delay in these programs lengthens the production flow time at KCNSC.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): A **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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	191.502	100.292	59.705	85.310	-	85.310	93.739	93.090	41.074	41.811	-	706.523
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	191.502	100.292	59.705	85.310	-	85.310	93.739	93.090	41.074	41.811	-	706.523
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	191.502	100.292	59.705	85.310	-	85.310	93.739	93.090	41.074	41.811	-	706.523

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

Initial Spares (<i>\$ in Millions</i>)	-	5.609	1.348	6.388	-	6.388	5.218	0.529	3.400	3.990	-	26.482
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2020 funding request was reduced by \$19.776 million to account for the availability of prior year execution balances.

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 FY21 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 T-9 Launch Facility Trainer Conversion, LGM-30G Launch Control Center Break-In-Kit (LCCB), LGM-30G Arm/Disarm Switch Replacement (ADSR), LGM-30G Control Monitor Procedure Trainer (CMPT), 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): A **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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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)				- / 117.717	- / 11.411	- / -	- / -	- / -	- / -
P-40a***	5928 / T-9 Launch Facility Trainer Conversion (T-9) (Other)				- / 33.286	- / -	- / 2.230	- / 0.287	- / -	- / 0.287
P-40a***	5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB) (Other)				- / 0.226	- / -	- / -	- / -	- / -	- / -
P-40a***	5947 / A/D Switch Replacement (Reliability & Maintainability)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	5948 / CMPT upgrade (Other)				- / -	- / -	- / 0.859	- / 0.129	- / -	- / 0.129
P-40a***	5949 / Fast Rising B-Plug Service Extension Program (FRBP SLEP) (Service Life Extension)				- / -	- / 0.000	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Other)				- / 7.238	- / -	- / 0.457	- / 0.000	- / -	- / 0.000
P-3a	5916 / ICBM Cryptography Upgrade Increment II (Capability Improvement)		A		- / 33.035	- / 50.591	- / 37.329	- / 31.907	- / 0.000	- / 31.907
P-3a	5921 / MM LCC Block Upgrades (Service Life Extension)		B		- / 0.000	- / 24.113	- / 17.246	- / 30.800	- / 0.000	- / 30.800
P-3a	5925 / MM III Auto Switching Unit (ASU) (Service Life Extension)		A		- / 0.000	- / 0.247	- / 0.565	- / 6.873	- / 0.000	- / 6.873
P-3a	5932 / LGM-30G Remote Visual Assessment Phase II (RVA II) (Other)		B		- / 0.000	- / 13.930	- / 1.019	- / 15.314	- / 0.000	- / 15.314
P-40	Total Gross/Weapon System Cost				- / 191.502	- / 100.292	- / 59.705	- / 85.310	- / -	- / 85.310

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	5910 / MINUTEMAN MEECN MODIFICATION (Capability Improvement)				- / -	- / -	- / -	- / -	- / -	- / 129.128
P-40a***	5928 / T-9 Launch Facility Trainer Conversion (T-9) (Other)				- / -	- / -	- / -	- / -	- / -	- / 35.803
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	- / 4.469	- / 0.000	- / -	- / -	- / 9.003
P-40a***	5948 / CMPT upgrade (Other)				- / -	- / -	- / -	- / -	- / -	- / 0.988
P-40a***	5949 / Fast Rising B-Plug Service Extension Program (FRBP SLEP) (Service Life Extension)				- / -	- / 17.809	- / 2.417	- / 18.000	- / -	- / 38.226
P-40a***	99999X / Low Cost Modifications (Other)				- / 0.000	- / 0.240	- / 12.767	- / 23.811	- / -	- / 44.513
P-3a	5916 / ICBM Cryptography Upgrade Increment II (Capability Improvement)		A		- / 7.812	- / 9.839	- / 0.000	- / -	- / -	- / 170.513
P-3a	5921 / MM LCC Block Upgrades (Service Life Extension)		B		- / 2.100	- / 0.000	- / -	- / -	- / -	- / 74.259
P-3a	5925 / MM III Auto Switching Unit (ASU) (Service Life Extension)		A		- / 50.547	- / 49.123	- / 25.890	- / 0.000	- / -	- / 133.245
P-3a	5932 / LGM-30G Remote Visual Assessment Phase II (RVA II) (Other)		B		- / 28.746	- / 11.610	- / 0.000	- / -	- / -	- / 70.619
P-40	Total Gross/Weapon System Cost				- / 93.739	- / 93.090	- / 41.074	- / 41.811	- / -	- / 706.523

*** 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.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
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): A	Program Elements for Code B Items: 0101213F	Other Related Program Elements: 0101213F, 0303131F
Line Item MDAP/MAIS Code: N/A		
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.		

Justification:

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5916 / ICBM Cryptography Upgrade Increment II

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	33.035	50.591	37.329	31.907	0.000	31.907	7.812	9.839	0.000	-	-	170.513
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	33.035	50.591	37.329	31.907	0.000	31.907	7.812	9.839	0.000	-	-	170.513
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	33.035	50.591	37.329	31.907	0.000	31.907	7.812	9.839	0.000	-	-	170.513

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

Initial Spares (<i>\$ in Millions</i>)	8.869	5.609	-	1.936	-	1.936	3.794	-	-	-	-	20.208
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 will conclude 2QFY2020.

Key production activities include:

- ICU II Milestone C: Aug 18
- ICU II Production Undefined Contract Action: Oct 18
- ICU II Production Definitization and Contract Award: Aug 19
- ICU II Production and Deployment Phase: 1QFY2019 - 4QFY2024
- ICU II IOC: 3QFY2022
- ICU II FOC: 2QFY2024

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M30MLG / MM III Modifications				Modification Number / Title: 5916 / ICBM Cryptography Upgrade Increment II					
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Capability Improvement				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> A4 Drawer Replacement													
B Kits													
Recurring													
A4 Drawer Replacement:EQUIPMENT Group B (Active)	- / 24.576	26 / 50.257	200 / 31.192	231 / 15.410	- / -	231 / 15.410	- / -	- / -	- / -	- / -	- / -	457 / 121.435	
<i>Subtotal: Recurring</i>	- / 24.576	- / 50.257	- / 31.192	- / 15.410	- / -	- / 15.410	- / -	- / -	- / -	- / -	- / -	- / 121.435	
<i>Subtotal: A4 Drawer Replacement</i>	- / 24.576	- / 50.257	- / 31.192	- / 15.410	- / -	- / 15.410	- / -	- / -	- / -	- / -	- / -	- / 121.435	
<i>Subtotal: Procurement, All Modification Items</i>	- / 24.576	- / 50.257	- / 31.192	- / 15.410	- / -	- / 15.410	- / -	- / -	- / -	- / -	- / -	- / 121.435	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 17.378	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.378	
OTHER GOVT	- / -	- / -	- / 14.113	- / 16.150	- / -	- / 16.150	- / 3.050	- / 1.940	- / -	- / -	- / -	- / 15.253	
SUPPORT-EQUIP	- / -	- / 10.133	- / 10.000	- / 13.185	- / -	- / 13.185	- / 10.000	- / -	- / -	- / -	- / -	- / 13.318	
Change Orders	- / -	- / -	- / 11.327	- / 14.238	- / -	- / 14.238	- / 1.619	- / 4.598	- / -	- / -	- / -	- / 11.782	
A&AS	- / 1.025	- / -	- / 10.000	- / 11.443	- / -	- / 11.443	- / 1.519	- / 1.519	- / -	- / -	- / -	- / 15.506	
PMA - Other Gov't Costs	- / 10.056	- / 10.201	- / 10.697	- / 11.481	- / -	- / 11.481	- / 1.624	- / 1.782	- / -	- / -	- / -	- / 15.841	
<i>Subtotal: Support</i>	- / 8.459	- / 10.334	- / 16.137	- / 16.497	- / -	- / 16.497	- / 7.812	- / 9.839	- / -	- / -	- / -	- / 49.078	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	33.035	50.591	37.329	31.907	0.000	31.907	7.812	9.839	0.000	-	-	170.513	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications			Modification Number / Title: 5916 / ICBM Cryptography Upgrade Increment II	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 1: A4 Drawer Replacement							
Manufacturer Information							
Manufacturer Name: The Boeing Company				Manufacturer Location: Heath, OH			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 26			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Aug 2019	Oct 2019	Oct 2020				
Delivery Dates	Oct 2021	Dec 2021	Dec 2022				
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 457		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5921 / MM LCC Block Upgrades

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	24.113	17.246	30.800	0.000	30.800	2.100	0.000	-	-	-	74.259
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	24.113	17.246	30.800	0.000	30.800	2.100	0.000	-	-	-	74.259
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	24.113	17.246	30.800	0.000	30.800	2.100	0.000	-	-	-	74.259

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

Initial Spares <i>(\$ in Millions)</i>	-	-	1.348	3.696	-	3.696	-	-	-	-	-	5.044
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The LCCBU program addresses several elements within the LCC experiencing supportability issues. Each component will be procured once development has been completed and installed at each LCC based on availability. It will consist of Journal Memory Loader (JML), Flash Data Drive (FDD), Weapon System Control Console (WSCC) Printer, Oxygen Regeneration Unit (ORU), and associated Trainers and support equipment.

All LCCBU efforts will support 45 operational LCCs, 12 trainers, 2 Integration Facilities, 2 Test Launch Facilities, additional support and test equipment for maintenance locations.

The current number of Production units for deployment includes 49 operational units and 12 trainer units. However, LCCBU is currently funded for 21 units.

Once complete, the 4 production items will be combined for deployment to the 45 LCCs, remaining production items will be distributed to test, training and support facilities as required.

RDT&E efforts are included in PE 0101213F. Development for applicable components concludes and transitions to production in FY20.

Milestone/Development Status

Key production activities include:

LCC Block Upgrades Milestone C: 2QFY2020

LCC Block Upgrades Production and Deployment:2QFY2020 - 4QFY2023

LCC Block Upgrades RAA: 4QFY2023

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5921 / MM LCC Block Upgrades			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Service Life Extension				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
RDT&E PE #													
0101213F	- / 37.489	- / 9.887	- / 2.718	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 50.094	
Procurement													
<i>Modification Item 1 of 1:</i> Modification Kit													
B Kits													
Recurring													
Modification Kit:EQUIPMENT Group B (Active)	- / -	- / 21.802	21 / 13.824	40 / 23.684	- / -	40 / 23.684	- / -	- / -	- / -	- / -	- / -	61 / 59.310	
<i>Subtotal: Recurring</i>	- / -	- / 21.802	- / 13.824	- / 23.684	- / -	- / 23.684	- / -	- / -	- / -	- / -	- / -	- / 59.310	
<i>Subtotal: Modification Kit</i>	- / -	- / 21.802	- / 13.824	- / 23.684	- / -	- / 23.684	- / -	- / -	- / -	- / -	- / -	- / 59.310	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 21.802	- / 13.824	- / 23.684	- / -	- / 23.684	- / -	- / -	- / -	- / -	- / -	- / 59.310	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / 1.375	- / 0.491	- / 0.584	- / -	- / 0.584	- / 0.449	- / -	- / -	- / -	- / -	- / 2.899	
A&AS	- / -	- / 0.936	- / 0.203	- / 0.280	- / -	- / 0.280	- / 0.148	- / -	- / -	- / -	- / -	- / 1.567	
OTHER GOVT	- / -	- / -	- / 0.720	- / 0.019	- / -	- / 0.019	- / -	- / -	- / -	- / -	- / -	- / 0.739	
Change Orders	- / -	- / -	- / 2.008	- / 0.660	- / -	- / 0.660	- / -	- / -	- / -	- / -	- / -	- / 2.668	
Mod of Spares	- / -	- / -	- / -	- / 4.173	- / -	- / 4.173	- / -	- / -	- / -	- / -	- / -	- / 4.173	
<i>Subtotal: Support</i>	- / -	- / 2.311	- / 3.422	- / 5.716	- / -	- / 5.716	- / 0.597	- / -	- / -	- / -	- / -	- / 12.046	
Installation													
<i>Modification Item 1 of 1:</i> Modification Kit	- / -	- / -	- / -	21 / 1.400	- / -	21 / 1.400	40 / 1.503	- / -	- / -	- / -	- / -	61 / 2.903	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	21 / 1.400	- / -	21 / 1.400	40 / 1.503	- / -	- / -	- / -	- / -	61 / 2.903	
Total													
Total Cost (Procurement + Support + Installation)	0.000	24.113	17.246	30.800	0.000	30.800	2.100	0.000	-	-	-	74.259	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5921 / MM LCC Block Upgrades
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ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 1 of 1: Modification Kit

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: TBD
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 10
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Mar 2020	Nov 2021				
Delivery Dates		Jan 2021	Sep 2022				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	21 / 1.400	- / -	21 / 1.400	- / -	- / -	- / -	- / -	- / -	21 / 1.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	40 / 1.503	- / -	- / -	- / -	- / -	40 / 1.503
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	21 / 1.400	- / -	21 / 1.400	40 / 1.503	- / -	- / -	- / -	- / -	61 / 2.903

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	7	7	7	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	0	61
Out	0	-	-	-	-	-	-	-	-	-	7	7	7	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	0	61

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5925 / MM III Auto Switching Unit (ASU)

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.247	0.565	6.873	0.000	6.873	50.547	49.123	25.890	0.000	-	133.245
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.247	0.565	6.873	0.000	6.873	50.547	49.123	25.890	0.000	-	133.245
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.247	0.565	6.873	0.000	6.873	50.547	49.123	25.890	0.000	-	133.245

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	0.650	-	-	-	-	0.650
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 will be impacted by this program at all missile wings. 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.

Milestone/Development Status

Key production activities include:

ASU Milestone C: May 19

Production and Deployment Phase: 2QFY2021 - 4QFY2024

ASU RAA: Sep 24

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5925 / MM III Auto Switching Unit (ASU)			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Service Life Extension				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Auto Switching Unit</i>													
B Kits													
Recurring													
Auto Switching Unit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	22 / 4.113	- / -	22 / 4.113	252 / 30.899	170 / 23.900	56 / 13.340	- / -	- / -	500 / 72.252	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 4.113	- / -	- / 4.113	- / 30.899	- / 23.900	- / 13.340	- / -	- / -	- / 72.252	
<i>Subtotal: Auto Switching Unit</i>	- / -	- / -	- / -	- / 4.113	- / -	- / 4.113	- / 30.899	- / 23.900	- / 13.340	- / -	- / -	- / 72.252	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 4.113	- / -	- / 4.113	- / 30.899	- / 23.900	- / 13.340	- / -	- / -	- / 72.252	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / 0.040	- / 0.600	- / -	- / 0.600	- / 0.616	- / 0.631	- / 0.646	- / -	- / -	- / 2.533	
OTHER GOVT	- / -	- / -	- / -	- / 0.153	- / -	- / 0.153	- / 0.275	- / 0.250	- / 0.139	- / -	- / -	- / 0.817	
A&AS	- / -	- / 0.247	- / 0.525	- / 0.535	- / -	- / 0.535	- / 0.543	- / 0.550	- / 0.557	- / -	- / -	- / 2.957	
<i>Subtotal: Support</i>	- / -	- / 0.247	- / 0.565	- / 1.288	- / -	- / 1.288	- / 1.434	- / 1.431	- / 1.342	- / -	- / -	- / 6.307	
Installation													
<i>Modification Item 1 of 1: Auto Switching Unit</i>	- / -	- / -	- / -	2 / 1.472	- / -	2 / 1.472	172 / 18.214	235 / 23.792	91 / 11.208	- / -	- / -	500 / 54.686	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	2 / 1.472	- / -	2 / 1.472	172 / 18.214	235 / 23.792	91 / 11.208	- / -	- / -	500 / 54.686	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.247	0.565	6.873	0.000	6.873	50.547	49.123	25.890	0.000	-	133.245	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5925 / MM III Auto Switching Unit (ASU)
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 1 of 1: Auto Switching Unit

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Ogden, UT
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Mar 2021	Dec 2021	Dec 2022	Dec 2023	
Delivery Dates			Jun 2021	Mar 2022	Mar 2023	Mar 2024	

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	2 / 1.472	- / -	2 / 1.472	- / -	- / -	- / -	- / -	- / -	2 / 1.472
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	172 / 18.214	- / -	- / -	- / -	- / -	172 / 18.214
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	235 / 23.792	- / -	- / -	- / -	235 / 23.792
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	91 / 11.208	- / -	- / -	91 / 11.208
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 1.472	- / -	2 / 1.472	172 / 18.214	235 / 23.792	91 / 11.208	- / -	- / -	500 / 54.686

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	172	-	-	-	235	-	-	-	91	-	-	-	-	0	500
Out	0	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	172	-	-	-	235	-	-	-	91	-	-	-	-	0	500

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	13.930	1.019	15.314	0.000	15.314	28.746	11.610	0.000	-	-	70.619
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	13.930	1.019	15.314	0.000	15.314	28.746	11.610	0.000	-	-	70.619
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	13.930	1.019	15.314	0.000	15.314	28.746	11.610	0.000	-	-	70.619

(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	-	0.756	0.774	0.529	-	-	-	2.059
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 Development: 3QFY2020-4QFY2023
- RVA II IOC: Aug 21
- RVA II FOC: Jul 23

EMD contract awarded in FY17 and completed in 1QFY20.

First lot (1squadron) 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.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M30MLG / MM III Modifications				Modification Number / Title: 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)					
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Other				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
RDT&E PE #													
0101213F	- / 4.824	- / 6.521	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.345	
Procurement													
<i>Modification Item 1 of 1: RVA II</i>													
B Kits													
Recurring													
RVA II:EQUIPMENT Group B (Active)	- / -	- / 13.414	- / 0.811	3 / 11.830	- / -	3 / 11.830	6 / 19.877	0 / 2.832	- / -	- / -	- / -	9 / 48.764	
<i>Subtotal: Recurring</i>	- / -	- / 13.414	- / 0.811	- / 11.830	- / -	- / 11.830	- / 19.877	- / 2.832	- / -	- / -	- / -	- / 48.764	
<i>Subtotal: RVA II</i>	- / -	- / 13.414	- / 0.811	- / 11.830	- / -	- / 11.830	- / 19.877	- / 2.832	- / -	- / -	- / -	- / 48.764	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 13.414	- / 0.811	- / 11.830	- / -	- / 11.830	- / 19.877	- / 2.832	- / -	- / -	- / -	- / 48.764	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / 0.516	- / 0.208	- / 1.670	- / -	- / 1.670	- / 1.613	- / 1.522	- / -	- / -	- / -	- / 5.529	
<i>Subtotal: Support</i>	- / -	- / 0.516	- / 0.208	- / 1.670	- / -	- / 1.670	- / 1.613	- / 1.522	- / -	- / -	- / -	- / 5.529	
Installation													
<i>Modification Item 1 of 1: RVA II</i>	- / -	- / -	- / -	1 / 1.814	- / -	1 / 1.814	4 / 7.256	4 / 7.256	- / -	- / -	- / -	9 / 16.326	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	1 / 1.814	- / -	1 / 1.814	4 / 7.256	4 / 7.256	- / -	- / -	- / -	9 / 16.326	
Total													
Total Cost (Procurement + Support + Installation)	0.000	13.930	1.019	15.314	0.000	15.314	28.746	11.610	0.000	-	-	70.619	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5932 / LGM-30G Remote Visual Assessment Phase II (RVA II)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 1 of 1: RVA II

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 6

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Oct 2020	Oct 2021			
Delivery Dates			Apr 2021	Apr 2022			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	1 / 1.814	- / -	1 / 1.814	2 / 3.628	- / -	- / -	- / -	- / -	3 / 5.442
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.628	4 / 7.256	- / -	- / -	- / -	6 / 10.884
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 1.814	- / -	1 / 1.814	4 / 7.256	4 / 7.256	- / -	- / -	- / -	9 / 16.326

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	1	-	1	1	2	-	2	2	-	-	-	-	-	-	-	-	-	-	0	9
Out	0	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	2	-	2	2	-	-	-	-	-	-	-	-	-	0	9

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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:
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	37.191	33.890	0.294	0.298	-	0.298	0.305	0.311	0.317	0.323	-	72.929
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	37.191	33.890	0.294	0.298	-	0.298	0.305	0.311	0.317	0.323	-	72.929
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	37.191	33.890	0.294	0.298	-	0.298	0.305	0.311	0.317	0.323	-	72.929

(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:

FY19 funding totals include \$33.602M requested for Overseas Contingency Operations to fund the modification of 336 legacy AGM-65 Maverick missiles to Laser Maverick missiles.

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 Missile Systems. 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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)
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101122F	Other Related Program Elements: 0101122F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	192.002	18.032	68.513	52.924	-	52.924	45.118	33.083	22.976	22.967	79.335	534.950
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	192.002	18.032	68.513	52.924	-	52.924	45.118	33.083	22.976	22.967	79.335	534.950
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	192.002	18.032	68.513	52.924	-	52.924	45.118	33.083	22.976	22.967	79.335	534.950

(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:

Support Equipment funding through the Future Years Defense Program adjusted to reflect the upcoming support equipment refurbishment and procurement activities to support the ALCM peculiar support equipment.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): B **Program Elements for Code B Items:** 0101122F **Other Related Program Elements:** 0101122F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	- / 0.000	- / 0.090	- / 0.100	- / -	- / 0.100
P-40a***	860002 / AGM-86B Service Life Extension Program 2 (Service Life Extension)				- / 57.877	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a***	860004 / AGM-86B Service Life Extension Program 3 (Service Life Extension)				- / 14.553	- / -	- / -	- / -	- / -	- / -
P-40a***	860011 / Support Equipment (Reliability & Maintainability)				- / -	- / 0.197	- / -	- / 0.985	- / -	- / 0.985
P-40a***	860101 / AGM-86B Service Life Extension Program 1 (Service Life Extension)				- / 9.591	- / 0.137	- / 2.805	- / 2.882	- / -	- / 2.882
P-40a***	860103 / Warhead Arming Device (WAD) (Service Life Extension)				- / -	- / 7.777	- / 0.009	- / 0.009	- / -	- / 0.009
P-40a***	860106 / W-10 Cable (Service Life Extension)				- / -	- / 0.646	- / 0.727	- / 0.749	- / -	- / 0.749
P-3a	860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit (Capability Improvement)			B	- / 108.178	- / 1.300	- / 11.767	- / 11.800	- / 0.000	- / 11.800
P-3a	860104 / Rotary Switch (RS) (Reliability & Maintainability)			B	- / 0.000	- / 7.970	- / 6.228	- / 6.403	- / 0.000	- / 6.403
P-3a	860105 / Guided Missile Flight Controller (GMFC) (Reliability & Maintainability)			B	- / 0.005	- / 0.005	- / 0.012	- / 11.522	- / 0.000	- / 11.522
P-3a	860107 / Fuze Assembly (Service Life Extension)			B	- / -	- / 0.000	- / 13.905	- / 7.609	- / 0.000	- / 7.609
P-3a	860108 / Inertial Navigation Element (INE) (Reliability & Maintainability)			B	- / -	- / 0.000	- / 32.970	- / 10.865	- / 0.000	- / 10.865
P-40	Total Gross/Weapon System Cost				- / 192.002	- / 18.032	- / 68.513	- / 52.924	- / -	- / 52.924

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	_0468 / AGM-86B Low Cost Mods (Other)				- / 0.100	- / 0.100	- / 0.100	- / -	- / -	- / 2.288
P-40a***	860002 / AGM-86B Service Life Extension Program 2 (Service Life Extension)				- / 0.000	- / -	- / -	- / -	- / -	- / 57.877
P-40a***	860004 / AGM-86B Service Life Extension Program 3 (Service Life Extension)				- / -	- / -	- / -	- / -	- / -	- / 14.553
P-40a***	860011 / Support Equipment (Reliability & Maintainability)				- / 5.831	- / 5.877	- / 3.510	- / 3.791	- / -	- / 20.191
P-40a***	860101 / AGM-86B Service Life Extension Program 1 (Service Life Extension)				- / 2.961	- / 3.043	- / 3.124	- / 2.721	- / 0.015	- / 27.279
P-40a***	860103 / Warhead Arming Device (WAD) (Service Life Extension)				- / 0.010	- / 0.001	- / -	- / -	- / -	- / 7.806
P-40a***	860106 / W-10 Cable (Service Life Extension)				- / 0.371	- / 0.206	- / -	- / -	- / -	- / 2.699
P-3a	860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit (Capability Improvement)			B	- / 9.200	- / 3.300	- / 0.000	- / 0.000	- / -	- / 145.545
P-3a	860104 / Rotary Switch (RS) (Reliability & Maintainability)			B	- / 6.572	- / 5.229	- / 0.235	- / 0.232	- / 0.000	- / 32.869
P-3a	860105 / Guided Missile Flight Controller (GMFC) (Reliability & Maintainability)			B	- / 7.541	- / 7.494	- / 7.907	- / 8.123	- / 7.609	- / 50.218

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): B **Program Elements for Code B Items:** 0101122F **Other Related Program Elements:** 0101122F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	860107 / Fuze Assembly (Service Life Extension)		B		- / 2.025	- / 0.026	- / 0.000	- / 0.000	- / 0.000	- / 23.565
P-3a	860108 / Inertial Navigation Element (INE) (Reliability & Maintainability)		B		- / 10.507	- / 7.807	- / 8.100	- / 8.100	- / 71.711	- / 150.060
P-40	Total Gross/Weapon System Cost				- / 45.118	- / 33.083	- / 22.976	- / 22.967	- / 79.335	- / 534.950

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

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	108.178	1.300	11.767	11.800	0.000	11.800	9.200	3.300	0.000	0.000	-	145.545
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	108.178	1.300	11.767	11.800	0.000	11.800	9.200	3.300	0.000	0.000	-	145.545
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	108.178	1.300	11.767	11.800	0.000	11.800	9.200	3.300	0.000	0.000	-	145.545

(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. In 2010, AFGSC increased the CATIK requirement by 66 units and later added an additional 14 more units to support flight test requirements through 2028. The remaining requirement to procure is 39 CATIK units.

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

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

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

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)							Modification Number / Title: 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: AGM-86B				Modification Type: Capability Improvement				Related RDT&E PEs: 0101122F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: CATIKS</i>													
B Kits													
Recurring													
CATIKS:EQUIPMENT Group B (Active)	115 / 82.200	0 / 0.000	13 / 11.760	14 / 10.543	- / -	14 / 10.543	12 / 9.193	- / -	- / -	- / -	- / -	154 / 113.696	
<i>Subtotal: Recurring</i>	- / 82.200	- / 0.000	- / 11.760	- / 10.543	- / -	- / 10.543	- / 9.193	- / -	- / -	- / -	- / -	- / 113.696	
<i>Subtotal: CATIKS</i>	- / 82.200	- / 0.000	- / 11.760	- / 10.543	- / -	- / 10.543	- / 9.193	- / -	- / -	- / -	- / -	- / 113.696	
<i>Subtotal: Procurement, All Modification Items</i>	- / 82.200	- / 0.000	- / 11.760	- / 10.543	- / -	- / 10.543	- / 9.193	- / -	- / -	- / -	- / -	- / 113.696	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 1.767	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.767	
PMA - Other Gov't Costs	0 / 0.007	0 / 0.019	- / 0.007	0 / 0.007	- / -	0 / 0.007	0 / 0.007	0 / 0.007	- / -	- / -	- / -	0 / 0.054	
Change Orders	0 / 2.786	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	0 / 2.786	
Data	0 / 1.691	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	0 / 1.691	
OTHER GOVT	0 / 1.761	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	0 / 1.761	
SUPPORT-EQUIP	138 / 17.966	12 / 1.281	- / -	12 / 1.250	- / -	12 / 1.250	- / -	27 / 3.293	- / 0.000	- / 0.000	- / -	189 / 23.790	
<i>Subtotal: Support</i>	138 / 25.978	12 / 1.300	- / 0.007	12 / 1.257	- / -	12 / 1.257	0 / 0.007	27 / 3.300	- / 0.000	- / 0.000	- / -	189 / 31.849	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	108.178	1.300	11.767	11.800	0.000	11.800	9.200	3.300	0.000	0.000	-	145.545	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: CATIKS							
Manufacturer Information							
Manufacturer Name: Boeing Company				Manufacturer Location: Oklahoma City, OK			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 24			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Jun 2020	Jun 2021	Jun 2022			
Delivery Dates		Jun 2022	Jun 2023	Jun 2024			
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 168		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860104 / Rotary Switch (RS)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	7.970	6.228	6.403	0.000	6.403	6.572	5.229	0.235	0.232	0.000	32.869
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	7.970	6.228	6.403	0.000	6.403	6.572	5.229	0.235	0.232	0.000	32.869
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	7.970	6.228	6.403	0.000	6.403	6.572	5.229	0.235	0.232	0.000	32.869

(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:

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 FY20-FY25.

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 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.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)					Modification Number / Title: 860104 / Rotary Switch (RS)			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: AGM-86				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0101122F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 2: Rotary Switch-Depot</i>													
B Kits													
Recurring													
Rotary Switch-Depot:EQUIPMENT Group B (Active)	- / -	24 / 1.410	24 / 1.534	24 / 1.575	- / -	24 / 1.575	24 / 1.621	24 / 1.667	- / -	- / -	- / -	120 / 7.807	
<i>Subtotal: Recurring</i>	- / -	- / 1.410	- / 1.534	- / 1.575	- / -	- / 1.575	- / 1.621	- / 1.667	- / -	- / -	- / -	- / 7.807	
<i>Subtotal: Rotary Switch-Depot</i>	- / -	- / 1.410	- / 1.534	- / 1.575	- / -	- / 1.575	- / 1.621	- / 1.667	- / -	- / -	- / -	- / 7.807	
<i>Modification Item 2 of 2: Rotary Switch-Org/Intermediate</i>													
B Kits													
Recurring													
Rotary Switch-Org/Intermediate:EQUIPMENT Group B (Active)	- / -	70 / 4.111	70 / 4.474	70 / 4.595	- / -	70 / 4.595	70 / 4.729	70 / 3.334	- / -	- / -	- / -	350 / 21.243	
<i>Subtotal: Recurring</i>	- / -	- / 4.111	- / 4.474	- / 4.595	- / -	- / 4.595	- / 4.729	- / 3.334	- / -	- / -	- / -	- / 21.243	
<i>Subtotal: Rotary Switch-Org/Intermediate</i>	- / -	- / 4.111	- / 4.474	- / 4.595	- / -	- / 4.595	- / 4.729	- / 3.334	- / -	- / -	- / -	- / 21.243	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 5.521	- / 6.008	- / 6.170	- / -	- / 6.170	- / 6.350	- / 5.001	- / -	- / -	- / -	- / 29.050	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / -	- / 0.001	- / 0.012	- / 0.020	- / -	- / 0.020	- / 0.010	- / 0.009	- / 0.010	- / -	- / -	- / 0.062	
A&AS	- / -	- / 2.448	- / 0.204	- / 0.209	- / -	- / 0.209	- / 0.208	- / 0.214	- / 0.220	- / 0.227	- / -	- / 3.730	
<i>Subtotal: Support</i>	- / 0.000	- / 2.449	- / 0.216	- / 0.229	- / -	- / 0.229	- / 0.218	- / 0.223	- / 0.230	- / 0.227	- / -	- / 3.792	
Installation													
<i>Modification Item 1 of 2: Rotary Switch-Depot</i>													
Recurring													
Rotary Switch-Depot	- / -	- / -	18 / 0.004	24 / 0.004	- / -	24 / 0.004	24 / 0.004	24 / 0.005	24 / 0.005	6 / 0.005	- / -	120 / 0.027	
<i>Subtotal: Installation</i>	- / -	- / -	18 / 0.004	24 / 0.004	- / -	24 / 0.004	24 / 0.004	24 / 0.005	24 / 0.005	6 / 0.005	- / -	120 / 0.027	
Total													
Total Cost (Procurement + Support + Installation)	0.000	7.970	6.228	6.403	0.000	6.403	6.572	5.229	0.235	0.232	0.000	32.869	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860104 / Rotary Switch (RS)
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ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 1 of 2: Rotary Switch-Depot

Manufacturer Information

Manufacturer Name: Boeing Guidance and Repair Center (BGRC)	Manufacturer Location: Heath, OH
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Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 22
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022		
Delivery Dates	Aug 2020	Aug 2021	Aug 2022	Aug 2023	Aug 2024		

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	18 / 0.004	6 / 0.002	- / -	6 / 0.002	- / -	- / -	- / -	- / -	- / -	24 / 0.006
FY 2020	- / -	- / -	- / -	18 / 0.002	- / -	18 / 0.002	6 / 0.002	- / -	- / -	- / -	- / -	24 / 0.004
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.002	6 / 0.002	- / -	- / -	- / -	24 / 0.004
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.003	6 / 0.002	- / -	- / -	24 / 0.005
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.003	6 / 0.005	- / -	24 / 0.008
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	18 / 0.004	24 / 0.004	- / -	24 / 0.004	24 / 0.004	24 / 0.005	24 / 0.005	6 / 0.005	- / -	120 / 0.027

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	120
Out	0	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	120

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860104 / Rotary Switch (RS)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 2: Rotary Switch-Org/Intermediate							
Manufacturer Information							
Manufacturer Name: Boeing Guidance and Repair Center (BGRC)				Manufacturer Location: Heath, OH			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 22			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022		
Delivery Dates	Aug 2020	Aug 2021	Aug 2022	Aug 2023	Aug 2024		
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 328		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860105 / Guided Missile Flight Controller (GMFC)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.005	0.005	0.012	11.522	0.000	11.522	7.541	7.494	7.907	8.123	7.609	50.218
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.005	0.005	0.012	11.522	0.000	11.522	7.541	7.494	7.907	8.123	7.609	50.218
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.005	0.005	0.012	11.522	0.000	11.522	7.541	7.494	7.907	8.123	7.609	50.218

(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:

In FY19, the program segregated the AGM-86B Service Life Extension Program (SLEP-2) components Guided Missile Flight Controller (GMFC), Rotary Switch (RS), and Warhead Arming Device (WAD) into separate efforts. Some of the hardware installations documented under GMFC 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, 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 GMFC. The GMFC kit will be issued via a Time Compliance Technical Order (TCTO). The remanufactured GMFC TCTO will be available for installation at Hill AFB, Analytical Condition Inspection (ACI) at an annual rate of 24 kits. The GMFC 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.

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 2030.

The FY20 total program value increased from \$6.914M to \$11.053 in FY19 due to the following:

Kit Procurement: Increase of \$0.594M due to the ongoing Phase IIB Remanufacture Prototyping that has identified a potential for additional parts replacement during the remanufacture of the GMFC.

Peculiar Test Equipment Purchase: Increase of \$3.545M. The test equipment was not originally identified during prior years estimate due to the planned availability of Government Furnished Equipment (GFE). At the conclusion of the Phase IIA Remanufacture Procedure Development in Jan 2019 it was determined that the specialized equipment needed to perform qualification and acceptance testing no longer existed as GFE nor was there Contractor Acquired Property (CAP) so test equipment to support the remanufacture would be required. The purchase of the necessary equipment will occur in FY20 along with the Lot 1 Kit purchase.

Milestone/Development Status

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860105 / Guided Missile Flight Controller (GMFC)
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	

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.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)							Modification Number / Title: 860105 / Guided Missile Flight Controller (GMFC)		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: AGM-86B				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0101122F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 2:</i> GMFC Depot													
B Kits													
Recurring													
GMFC Depot:EQUIPMENT Group B (Active)	- / -	0 / 0.000	0 / 0.000	24 / 1.917	- / -	24 / 1.917	24 / 1.832	24 / 1.819	24 / 1.920	24 / 1.972	24 / 2.081	144 / 11.541	
<i>Subtotal: Recurring</i>	- / -	- / 0.000	- / 0.000	- / 1.917	- / -	- / 1.917	- / 1.832	- / 1.819	- / 1.920	- / 1.972	- / 2.081	- / 11.541	
<i>Subtotal: GMFC Depot</i>	- / -	- / 0.000	- / 0.000	- / 1.917	- / -	- / 1.917	- / 1.832	- / 1.819	- / 1.920	- / 1.972	- / 2.081	- / 11.541	
<i>Modification Item 2 of 2:</i> GMFC Org/Intermediate													
B Kits													
Recurring													
GMFC Org/Intermediate:EQUIPMENT Group B (Active)	- / -	0 / 0.000	0 / 0.000	70 / 5.591	- / -	70 / 5.591	70 / 5.344	70 / 5.306	70 / 5.600	70 / 5.753	48 / 4.162	398 / 31.756	
<i>Subtotal: Recurring</i>	- / -	- / 0.000	- / 0.000	- / 5.591	- / -	- / 5.591	- / 5.344	- / 5.306	- / 5.600	- / 5.753	- / 4.162	- / 31.756	
<i>Subtotal: GMFC Org/Intermediate</i>	- / -	- / 0.000	- / 0.000	- / 5.591	- / -	- / 5.591	- / 5.344	- / 5.306	- / 5.600	- / 5.753	- / 4.162	- / 31.756	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 0.000	- / 0.000	- / 7.508	- / -	- / 7.508	- / 7.176	- / 7.125	- / 7.520	- / 7.725	- / 6.243	- / 43.297	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / 0.000	- / 13.462	- / -	- / 13.462	- / -	- / -	- / -	- / -	- / -	- / 13.462	
PMA - Other Gov't Costs	- / 0.005	- / 0.005	- / 0.012	- / 0.552	- / -	- / 0.552	- / 0.363	- / 0.362	- / 0.379	- / 0.390	- / 1.342	- / 3.410	
<i>Subtotal: Support</i>	- / 0.005	- / 0.005	- / 0.012	- / 4.014	- / -	- / 4.014	- / 0.363	- / 0.362	- / 0.379	- / 0.390	- / 1.342	- / 6.872	
Installation													
<i>Modification Item 1 of 2:</i> GMFC Depot													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.002	24 / 0.007	24 / 0.008	24 / 0.008	66 / 0.024	144 / 0.049	
<i>Total</i>	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.002	24 / 0.007	24 / 0.008	24 / 0.008	66 / 0.024	144 / 0.049	
Total Cost (Procurement + Support + Installation)	0.005	0.005	0.012	11.522	0.000	11.522	7.541	7.494	7.907	8.123	7.609	50.218	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860105 / Guided Missile Flight Controller (GMFC)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 1 of 2: GMFC Depot

Manufacturer Information

Manufacturer Name: Boeing Guidance and Repair Center	Manufacturer Location: Heath, Ohio
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 12

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Sep 2021	Sep 2022	Sep 2023	Sep 2024	Sep 2025
Delivery Dates			Sep 2022	Sep 2023	Sep 2024	Sep 2025	Sep 2026

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.002	18 / 0.003	- / -	- / -	- / -	24 / 0.005
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.004	18 / 0.004	- / -	- / -	24 / 0.008
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.004	18 / 0.004	- / -	24 / 0.008
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.004	18 / 0.004	24 / 0.008
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.008	24 / 0.008
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.012	24 / 0.012
Total	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.002	24 / 0.007	24 / 0.008	24 / 0.008	66 / 0.024	144 / 0.049

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	66	144
Out	0	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	66	144

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Exhibit P-3a, Individual Modification: PB 2021 Air Force					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860105 / Guided Missile Flight Controller (GMFC)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 2: GMFC Org/Intermediate							
Manufacturer Information							
Manufacturer Name: Boeing Guidance and Repair Center					Manufacturer Location: Heath, Ohio		
Administrative Leadtime (in Months): 0					Production Leadtime (in Months): 12		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Sep 2021	Jun 2022	Jun 2023	Jun 2024	Jun 2025
Delivery Dates			Sep 2022	Jun 2023	Jun 2024	Jun 2025	Jun 2026
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 398		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860107 / Fuze Assembly

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	13.905	7.609	0.000	7.609	2.025	0.026	0.000	0.000	0.000	23.565
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	13.905	7.609	0.000	7.609	2.025	0.026	0.000	0.000	0.000	23.565
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	13.905	7.609	0.000	7.609	2.025	0.026	0.000	0.000	0.000	23.565

(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:

In FY19, the program segregated the SLEP 3 components (W-10 cable and fuze assembly) into separate efforts. Reference AGM-86B Service Life Extension Program (SLEP-3) modification number 860004 for prior years program information.

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 modification executes SLEP Fuze Assembly (Impact Sensor) and will replace the existing fuze assembly. The fuze assembly will be manufactured by the Original Equipment Manufacturer (Boeing). 24 SLEP fuze assembly kits per year will be delivered to the depot for installation in conjunction with Analytical Condition Inspection (ACI) missiles. The remaining SLEP fuze assembly kits will be delivered to the organizational-level maintenance personnel for installation via Time Compliance Technical Order in conjunction with scheduled maintenance activities. Service life extension of this critical weapon is essential to meet Air Force Global Strike Command (AFGSC) and United States Strategic Command (USSTRATCOM) operational needs. No costs shown for kits being installed at the Depot (ACIs).

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 2030.

Milestone/Development Status

Engineering studies and analysis programs identified SLEP Fuze Assembly (Impact Sensor) component 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 (OEM).

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)					Modification Number / Title: 860107 / Fuze Assembly			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: AGM-86B				Modification Type: Service Life Extension				Related RDT&E PEs: 0101122F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 2:</i> fuze assembly depot													
B Kits													
Recurring													
fuze assembly depot:EQUIPMENT Group B (Active)	- / -	0 / 0.000	48 / 3.599	24 / 1.934	- / -	24 / 1.934	24 / 2.001	- / -	- / -	- / -	- / -	96 / 7.534	
<i>Subtotal: Recurring</i>	- / -	- / 0.000	- / 3.599	- / 1.934	- / -	- / 1.934	- / 2.001	- / -	- / -	- / -	- / -	- / 7.534	
<i>Subtotal: fuze assembly depot</i>	- / -	- / 0.000	- / 3.599	- / 1.934	- / -	- / 1.934	- / 2.001	- / -	- / -	- / -	- / -	- / 7.534	
<i>Modification Item 2 of 2:</i> fuze assembly field													
B Kits													
Recurring													
fuze assembly field:EQUIPMENT Group B (Active)	- / -	0 / 0.000	137 / 10.272	70 / 5.641	- / -	70 / 5.641	- / -	- / -	- / -	- / -	- / -	207 / 15.913	
<i>Subtotal: Recurring</i>	- / -	- / 0.000	- / 10.272	- / 5.641	- / -	- / 5.641	- / -	- / -	- / -	- / -	- / -	- / 15.913	
<i>Subtotal: fuze assembly field</i>	- / -	- / 0.000	- / 10.272	- / 5.641	- / -	- / 5.641	- / -	- / -	- / -	- / -	- / -	- / 15.913	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 0.000	- / 13.871	- / 7.575	- / -	- / 7.575	- / 2.001	- / -	- / -	- / -	- / -	- / 23.447	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / 0.010	- / 0.010	- / -	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / 0.020	
<i>Subtotal: Support</i>	- / -	- / -	- / 0.010	- / 0.010	- / -	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / 0.020	
Installation													
<i>Modification Item 1 of 2:</i> fuze assembly depot													
<i>Subtotal: Installation</i>	- / -	- / -	24 / 0.024	24 / 0.024	- / -	24 / 0.024	24 / 0.024	24 / 0.026	- / -	- / -	- / -	96 / 0.098	
<i>Subtotal: Installation</i>	- / -	- / -	24 / 0.024	24 / 0.024	- / -	24 / 0.024	24 / 0.024	24 / 0.026	- / -	- / -	- / -	96 / 0.098	
Total													
Total Cost (Procurement + Support + Installation)	-	0.000	13.905	7.609	0.000	7.609	2.025	0.026	0.000	0.000	0.000	23.565	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860107 / Fuze Assembly
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 1 of 2: fuze assembly depot

Manufacturer Information

Manufacturer Name: Boeing Manufacturer Location: Heath, OH

Administrative Leadtime (in Months): 4 Production Leadtime (in Months): 4

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Apr 2020	Apr 2021	Apr 2022			
Delivery Dates		Aug 2020	Aug 2021	Aug 2022			

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	24 / 0.024	24 / 0.024	- / -	24 / 0.024	- / -	- / -	- / -	- / -	- / -	48 / 0.048
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	- / -	- / -	- / -	- / -	24 / 0.024
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.026	- / -	- / -	- / -	24 / 0.026
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	24 / 0.024	24 / 0.024	- / -	24 / 0.024	24 / 0.024	24 / 0.026	- / -	- / -	- / -	96 / 0.098

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	-	-	-	-	-	-	-	-	0	96
Out	0	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	-	-	-	-	-	-	-	-	0	96

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860107 / Fuze Assembly	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 2: fuze assembly field							
Manufacturer Information							
Manufacturer Name: Boeing				Manufacturer Location: Heath, OH			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 4			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Apr 2020	Apr 2021	Apr 2022			
Delivery Dates		Aug 2020	Aug 2021	Aug 2022			
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 207		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860108 / Inertial Navigation Element (INE)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	32.970	10.865	0.000	10.865	10.507	7.807	8.100	8.100	71.711	150.060
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	32.970	10.865	0.000	10.865	10.507	7.807	8.100	8.100	71.711	150.060
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	32.970	10.865	0.000	10.865	10.507	7.807	8.100	8.100	71.711	150.060

(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. 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.

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 FY20.

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.

Milestone/Development Status

FY20 begins production of INEs.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)						Modification Number / Title: 860108 / Inertial Navigation Element (INE)			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: AGM-86B				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0101122F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
RDT&E PE #													
0101122F	- / -	- / 4.875	- / 2.000	- / -	- / -	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / 6.875	
Procurement													
Modification Item 1 of 2: INE - Depot													
B Kits													
Recurring													
INE - Depot:EQUIPMENT Group B (Active)	- / -	- / -	5 / 32.570	24 / 6.338	- / -	24 / 6.338	24 / 6.178	24 / 4.618	24 / 4.794	24 / 4.794	192 / 44.587	317 / 103.879	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 32.570	- / 6.338	- / -	- / 6.338	- / 6.178	- / 4.618	- / 4.794	- / 4.794	- / 44.587	- / 103.879	
<i>Subtotal: INE - Depot</i>	- / -	- / -	- / 32.570	- / 6.338	- / -	- / 6.338	- / 6.178	- / 4.618	- / 4.794	- / 4.794	- / 44.587	- / 103.879	
Modification Item 2 of 2: INE - org / intermediate													
B Kits													
Recurring													
INE - org / intermediate:EQUIPMENT Group B (Active)	- / -	- / -	0 / 0.000	16 / 4.225	- / -	16 / 4.225	16 / 4.119	16 / 3.079	16 / 3.196	16 / 3.196	118 / 27.058	198 / 44.873	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.000	- / 4.225	- / -	- / 4.225	- / 4.119	- / 3.079	- / 3.196	- / 3.196	- / 27.058	- / 44.873	
<i>Subtotal: INE - org / intermediate</i>	- / -	- / -	- / 0.000	- / 4.225	- / -	- / 4.225	- / 4.119	- / 3.079	- / 3.196	- / 3.196	- / 27.058	- / 44.873	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 32.570	- / 10.563	- / -	- / 10.563	- / 10.297	- / 7.697	- / 7.990	- / 7.990	- / 71.645	- / 148.752	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / -	- / -	- / 0.400	- / 0.300	- / -	- / 0.300	- / 0.200	- / 0.100	- / 0.100	- / 0.100	- / -	- / 1.200	
<i>Subtotal: Support</i>	- / -	- / -	- / 0.400	- / 0.300	- / -	- / 0.300	- / 0.200	- / 0.100	- / 0.100	- / 0.100	- / -	- / 1.200	
Installation													
Modification Item 1 of 2: INE - Depot	- / -	- / -	- / -	5 / 0.002	- / -	5 / 0.002	24 / 0.010	24 / 0.010	24 / 0.010	24 / 0.010	216 / 0.066	317 / 0.108	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	5 / 0.002	- / -	5 / 0.002	24 / 0.010	24 / 0.010	24 / 0.010	24 / 0.010	216 / 0.066	317 / 0.108	
Total													
Total Cost (Procurement + Support + Installation)	-	0.000	32.970	10.865	0.000	10.865	10.507	7.807	8.100	8.100	71.711	150.060	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860108 / Inertial Navigation Element (INE)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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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): 3

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Sep 2020	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Delivery Dates		Dec 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024	Jan 2025

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	5 / 0.002	- / -	5 / 0.002	- / -	- / -	- / -	- / -	- / -	5 / 0.002
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.010	- / -	- / -	- / -	- / -	24 / 0.010
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.010	- / -	- / -	- / -	24 / 0.010
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.010	- / -	- / -	24 / 0.010
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.010	- / -	24 / 0.010
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.010	24 / 0.010
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	192 / 0.056	192 / 0.056
Total	- / -	- / -	- / -	5 / 0.002	- / -	5 / 0.002	24 / 0.010	24 / 0.010	24 / 0.010	24 / 0.010	216 / 0.066	317 / 0.108

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	0	-	-	-	-	-	-	-	-	-	-	-	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	216	317
Out	0	-	-	-	-	-	-	-	-	-	-	-	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	216	317

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860108 / Inertial Navigation Element (INE)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 2: INE - org / intermediate							
Manufacturer Information							
Manufacturer Name: Northrop Grumman				Manufacturer Location: Salt Lake City, UT			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 3			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Sep 2020	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Delivery Dates		Dec 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024	Jan 2025
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 166		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 / Missile Spares/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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	1.910	9.402	-	9.402	14.964	12.230	8.976	29.106	0.000	76.588
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	1.910	9.402	-	9.402	14.964	12.230	8.976	29.106	0.000	76.588
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	1.910	9.402	-	9.402	14.964	12.230	8.976	29.106	0.000	76.588

(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:

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.

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 following Major Defense Acquisition Programs (MDAP) have funding in this line:

- AMRAAM, 185
- SDB II, 439
- 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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 / Missile Spares/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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	- / 9.402	- / 0.000	- / 9.402
P-40	Total Gross/Weapon System Cost				- / 0.000	- / -	- / 1.910	- / 9.402	- / -	- / 9.402

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 FY21 ALCM funding request supports the following. The AGM-86 Air Launched Cruise Missile is well beyond its service life and requires spares to support 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, and Inertial Navigation Element. The Missile Replenishment Spares program funds support and maintain the ALCM service life extension program components. Spares funding for ALCM currently includes the fuze assembly and related parts.

Joint Air-Surface Standoff Missile: The FY21 JASSM missile Initial Spares program funds are required to fill the initial spare parts pipeline and replenishment/repair spare parts under the contractor logistic support program. These parts include items such as cables, telemetry packages, and electronic components to support and maintain fielded end items. These spares meet Air Combat Command's bed-down plans for JASSM.

MM III Modifications: The FY21 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, Re-entry Vehicle, Guidance System, Propulsion System, Launch Facility and Launch Control Center. FY21 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. FY21 initial spares will procure initial spares for the ICU II program.

AIM-9 Sidewinder/AIM-9X: FY21 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. 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) and Inert Measurement Units.

AGM-88A (HARM): The FY21 request funds all HARM replenishment spares parts that are needed to support and maintain the HARM weapon system. The Missile Replenishment Spares program procures parts required for depot level repairs that are necessary to sustain HARM. This includes items such as wing dampers, telemetry kits, batteries and fuzes.

AIM-120 Advanced Medium Range Air to Air Missile: The FY21 Missile Initial Spares program funds depot level post warranty repairs. The Missile Replenishment Spares program funds AMRAAM field unit repairs and intermediate level repairs on Captive Air Training Missiles (CATM). These repairs include such items as filter rectifiers, harness assemblies, wings and fins.

AGM-65D Maverick: The FY21 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.

Hellfire: FY21 Hellfire Missile Replenishment Spares funding supports repair and replacement of Hellfire parts not covered by warranty.

Small Diameter Bomb I (SDB I): The FY21 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).

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Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2021 Air Force					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 04 / 10		P-1 Line Item Number / Title: 00098A / Missile Spares/Repair Parts (Initial)			Title: Missile Spares/Repair Parts (Initial)		
End Item Line Item Number / Name [MDAP/MAIS]	Prior Years (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 Base (\$ M)	FY 2021 OCO (\$ M)	FY 2021 Total (\$ M)	
Initial							
BA 04 - Spares and Repair Parts							
M09BA1 / AIM-9 Sidewinder	-	-	0.256	0.000	0.000	0.000	
MALCBG / Air Launch Cruise Missile (ALCM)	-	-	0.119	0.328	0.000	0.328	
MAMRA0 / AMRAAM [185]	-	-	0.529	2.091	0.000	2.091	
JASSM0 / JOINT AIR-SURFACE STANDOFF MISSILE	-	-	0.434	0.440	0.000	0.440	
M30MLG / MM III MODIFICATIONS	-	-	0.338	4.682	0.000	4.682	
M09HA1 / Sidewinder (AIM-9X)	-	-	0.234	1.861	0.000	1.861	
Subtotal: Initial	-	-	1.910	9.402	0.000	9.402	
Total Cost (Initial + Replenishment)	-	-	1.910	9.402	0.000	9.402	

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	72.490	84.671	-	84.671	85.493	85.034	90.192	118.282	-	536.162
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	72.490	84.671	-	84.671	85.493	85.034	90.192	118.282	-	536.162
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	72.490	84.671	-	84.671	85.493	85.034	90.192	118.282	-	536.162

(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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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): 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	Msl Sprs/Repair Parts (Replen)				- / -	- / -	- / 72.490	- / 84.671	- / -	- / 84.671
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / 72.490	- / 84.671	- / -	- / 84.671

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 04 / 10 **P-1 Line Item Number / Title:** 00098K / Msl Sprs/Repair Parts (Replen) **Aggregated Items Title:** Msl Sprs/Repair Parts (Replen)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
Replenishment Spares Funding																				
M09BAI - AIM-9 Sidewinder	A		-	-	-	-	-	-	-	-	3.725	-	-	5.722	-	-	-	-	-	5.722
MALCBG - AGM-86 Air Launched Cruise Missile (ALCM)	A		-	-	-	-	-	-	-	-	2.321	-	-	2.356	-	-	-	-	-	2.356
M30MLG - LGM-30 MINUTEMAN (MM III)	A		-	-	-	-	-	-	-	-	44.785	-	-	51.421	-	-	-	-	-	51.421
M88AAG - AGM-88A Tactical AGM Missile (HARM)	A		-	-	-	-	-	-	-	-	6.347	-	-	8.206	-	-	-	-	-	8.206
MAMRA0 - AIM-120 Advanced Medium Range Air to Air Missile (AMRAAM)	A		-	-	-	-	-	-	-	-	0.854	-	-	0.868	-	-	-	-	-	0.868
M65DAG - AGM-65D Maverick	A		-	-	-	-	-	-	-	-	1.575	-	-	1.597	-	-	-	-	-	1.597
PRDTA2 - Predator Hellfire Missile	A		-	-	-	-	-	-	-	-	0.305	-	-	0.310	-	-	-	-	-	0.310
SDB000 - Small Diameter Bomb	A		-	-	-	-	-	-	-	-	6.760	-	-	8.285	-	-	-	-	-	8.285
M09HAI - AIM-9X	A		-	-	-	-	-	-	-	-	5.818	-	-	5.906	-	-	-	-	-	5.906
Subtotal: Replenishment Spares Funding			-	-	-	-	-	-	-	-	72.490	-	-	84.671	-	-	-	-	-	84.671
Total			-	-	-	-	-	-	-	-	72.490	-	-	84.671	-	-	-	-	-	84.671

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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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: 000999 / Replen Spares/Repair Parts
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 000

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	84.371	-	-	-	-	-	-	-	-	-	84.371
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	84.371	-	-	-	-	-	-	-	-	-	84.371
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	84.371	-	-	-	-	-	-	-	-	-	84.371

(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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

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:
 000999 / Replen Spares/Repair Parts

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: 000

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	Replen Spares/Repair Parts				- / -	- / 84.371	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / -	- / 84.371	- / -	- / -	- / -	- / -

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 04 / 10 **P-1 Line Item Number / Title:** 000999 / Replen Spares/Repair Parts **Aggregated Items Title:** Replen Spares/Repair Parts

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
Initial Spares Funding																				
M09BA1 - AIM-9 Sidewinder	A		-	-	-	-	-	2.455	-	-	-	-	-	-	-	-	-	-	-	-
MALCBG - Air Launch Cruise Missile (ALCM)	A		-	-	-	-	-	0.308	-	-	-	-	-	-	-	-	-	-	-	-
MAMRA0 - AMRAAM	A		-	-	-	-	-	0.023	-	-	-	-	-	-	-	-	-	-	-	-
JASSM0 - JOINT AIR-SURFACE STANDOFF MISSILE	A		-	-	-	-	-	0.425	-	-	-	-	-	-	-	-	-	-	-	-
M30MLG - MM III MODIFICATIONS	A		-	-	-	-	-	8.372	-	-	-	-	-	-	-	-	-	-	-	-
M09HAI - Sidewinder (AIM-9X)	A		-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Initial Spares Funding			-	-	-	-	-	13.383	-	-	-	-	-	-	-	-	-	-	-	-
Replenishment Spares Funding																				
M09BAI - AIM-9 Sidewinder	A		-	-	-	-	-	2.713	-	-	-	-	-	-	-	-	-	-	-	-
MALCBG - AGM-86 Air Launched Cruise Missile (ALCM)	A		-	-	-	-	-	2.280	-	-	-	-	-	-	-	-	-	-	-	-
M30MLG - LGM-30 MINUTEMAN (MM III)	A		-	-	-	-	-	50.201	-	-	-	-	-	-	-	-	-	-	-	-
M88AAG - AGM-88A Tactical AGM Missile (HARM)	A		-	-	-	-	-	7.675	-	-	-	-	-	-	-	-	-	-	-	-
MAMRA0 - AIM-120 Advanced Medium Range Air to Air Missile (AMRAAM)	A		-	-	-	-	-	0.839	-	-	-	-	-	-	-	-	-	-	-	-
M65DAG - AGM-65D Maverick	A		-	-	-	-	-	0.545	-	-	-	-	-	-	-	-	-	-	-	-
PRDTA2 - Predator Hellfire Missile	A		-	-	-	-	-	0.298	-	-	-	-	-	-	-	-	-	-	-	-
SDB000 - Small Diameter Bomb	A		-	-	-	-	-	0.902	-	-	-	-	-	-	-	-	-	-	-	-
M09HAI - AIM-9X	A		-	-	-	-	-	5.535	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Replenishment Spares Funding			-	-	-	-	-	70.988	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	84.371	-	-	-	-	-	-	-	-	-	-	-	-

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