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**Department of Defense
Fiscal Year (FY) 2019 Budget Estimates**

February 2018



Air Force

Justification Book Volume 1 of 1

Missile Procurement, Air Force

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Air Force • Budget Estimates FY 2019 • Procurement

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**Appropriation Language
Fiscal Year (FY) 2019 Budget Estimates
Missile Procurement, Air Force**

For construction, procurement, and modification of missiles, rockets, and related equipment, including spare parts and accessories therefor, ground handling equipment, and training devices; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents, transportation of things, and overseas contingency operations, \$3,162,980,000, to remain available for obligations until September 30, 2021.

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Department of the Air Force
 FY 2019 President's Budget
 Exhibit P-1 FY 2019 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: Missile Procurement, Air Force

Budget Activity	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO
01. Ballistic Missiles	50,247	99,098	99,098	
02. Other Missiles	1,384,106	1,217,595	1,217,595	385,400
03. Modification of Inservice Missiles	149,800	137,243	137,243	10,000
04. Spares and Repair Parts	70,607	101,153	101,153	
05. Other Support	1,020,356	741,093	741,093	
20. Undistributed		1,529	1,529	-76,405
Total Missile Procurement, Air Force	2,675,116	2,297,711	2,297,711	318,995

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01 Feb 2018

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2018 Total PB Requests+ with CR Adj OCO -----	FY 2018 Emergency Requests** Emergency -----	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs -----	FY 2018 Remaining Req Emergency -----
01. Ballistic Missiles				
02. Other Missiles	385,400			
03. Modification of Inservice Missiles	10,000			
04. Spares and Repair Parts				
05. Other Support		12,000	-12,000	
20. Undistributed	-76,405			
Total Missile Procurement, Air Force	318,995	12,000	-12,000	

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01 Feb 2018

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** -----	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs -----	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency -----
01. Ballistic Missiles	99,098		99,098
02. Other Missiles	1,602,995		1,602,995
03. Modification of Inservice Missiles	147,243		147,243
04. Spares and Repair Parts	101,153		101,153
05. Other Support	753,093	-12,000	741,093
20. Undistributed	-74,876		-74,876
Total Missile Procurement, Air Force	2,628,706	-12,000	2,616,706

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01 Feb 2018

Appropriation: Missile Procurement, Air Force

Budget Activity -----	FY 2019 Base -----	FY 2019 OCO -----	FY 2019 Total -----
01. Ballistic Missiles	36,786		36,786
02. Other Missiles	1,254,479	459,924	1,714,403
03. Modification of Inservice Missiles	196,986	33,602	230,588
04. Spares and Repair Parts	97,481		97,481
05. Other Support	1,083,722		1,083,722
20. Undistributed			
Total Missile Procurement, Air Force	2,669,454	493,526	3,162,980

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01 Feb 2018

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO)		FY 2018 PB Request with CR Adj Base		FY 2018 Total PB Requests* with CR Adj Base		FY 2018 PB Request with CR Adj OCO		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		50,247		99,098		99,098			U
				-----		-----		-----		-----	
Total Ballistic Missiles				50,247		99,098		99,098			
Budget Activity 02: Other Missiles											

Tactical											
2	Joint Air-Surface Standoff Missile	A	360	431,645	360	441,367	360	441,367			U
3	LRASM0		19	71,411	15	44,728	15	44,728			U
4	Sidewinder (AIM-9X)	A	287	127,438	310	125,350	310	125,350			U
5	AMRAAM	A	256	325,944	205	304,327	205	304,327			U
6	Predator Hellfire Missile	A	2219	175,330	399	34,867	399	34,867	3230	294,480	U
7	Small Diameter Bomb	A	4507	251,361	5039	266,030	5039	266,030	2273	90,920	U
8	SMALL DIAMETER BOMB II	B									U
Industrial Facilities											
9	Industr'l Preparedns/Pol Prevention	A		977		926		926			U
				-----		-----		-----		-----	
Total Other Missiles				1,384,106		1,217,595		1,217,595		385,400	

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Emergency		FY 2018 Less Enacted		FY 2018 Remaining		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									U
Total Ballistic Missiles											
Budget Activity 02: Other Missiles											

Tactical											
2	Joint Air-Surface Standoff Missile	A									U
3	LRASM0										U
4	Sidewinder (AIM-9X)	A									U
5	AMRAAM	A									U
6	Predator Hellfire Missile	A	3230	294,480							U
7	Small Diameter Bomb	A	2273	90,920							U
8	SMALL DIAMETER BOMB II	B									U
Industrial Facilities											
9	Industr'l Preparedns/Pol Prevention	A									U
Total Other Missiles				385,400							

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ballistic Missiles									

Missile Replacement Equipment - Ballistic									
1	Missile Replacement Eq-Ballistic	A		99,098				99,098	U
Total Ballistic Missiles				99,098				99,098	
Budget Activity 02: Other Missiles									

Tactical									
2	Joint Air-Surface Standoff Missile	A	360	441,367			360	441,367	U
3	LRASM0		15	44,728			15	44,728	U
4	Sidewinder (AIM-9X)	A	310	125,350			310	125,350	U
5	AMRAAM	A	205	304,327			205	304,327	U
6	Predator Hellfire Missile	A	3629	329,347			3629	329,347	U
7	Small Diameter Bomb	A	7312	356,950			7312	356,950	U
8	SMALL DIAMETER BOMB II	B							U
Industrial Facilities									
9	Industr'l Preparedns/Pol Prevention	A		926				926	U
Total Other Missiles				1,602,995				1,602,995	

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Se
Budget Activity 01: Ballistic Missiles									

Missile Replacement Equipment - Ballistic									
1	Missile Replacement Eq-Ballistic	A		36,786				36,786	U
Total Ballistic Missiles				36,786				36,786	
Budget Activity 02: Other Missiles									

Tactical									
2	Joint Air-Surface Standoff Missile	A	312	430,708	48	61,600	360	492,308	U
3	LRASM0		12	44,185			12	44,185	U
4	Sidewinder (AIM-9X)	A	256	121,253			256	121,253	U
5	AMRAAM	A	220	337,886	2	2,600	222	340,486	U
6	Predator Hellfire Missile	A	1338	113,765	3000	255,000	4338	368,765	U
7	Small Diameter Bomb	A	2917	105,034	3909	140,724	6826	245,758	U
8	SMALL DIAMETER BOMB II	B	510	100,861			510	100,861	U
Industrial Facilities									
9	Industr'l Preparedns/Pol Prevention	A		787				787	U
Total Other Missiles				1,254,479		459,924		1,714,403	

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Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO)		FY 2018 PB Request with CR Adj Base		FY 2018 Total PB Requests* with CR Adj Base		FY 2018 PB Request with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 03: Modification of Inservice Missiles											

Class IV											
10	ICBM FUZE MOD	A		17,095		6,334		6,334			U
11	ICBM FUZE MOD Advance Procurement (CY) C (FY 2019 for FY 2022) (M)										U
12	MM III Modifications	A		68,692		80,109		80,109			U
13	AGM-65D Maverick	A		26,902		289		289		10,000	U
14	Air Launch Cruise Missile (ALCM)	A		21,762		36,425		36,425			U
15	Small Diameter Bomb	A		15,349		14,086		14,086			U
Total Modification of Inservice Missiles				149,800		137,243		137,243		10,000	
Budget Activity 04: Spares and Repair Parts											

Missile Spares and Repair Parts											
16	Replen Spares/Repair Parts	A		70,607		101,153		101,153			U
Total Spares and Repair Parts				70,607		101,153		101,153			
Budget Activity 05: Other Support											

Special Programs											

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18 Special Update Programs

A

46,125

32,917

32,917

U

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018		FY 2018		FY 2018		S e c
			Quantity	Cost	Emergency Requests**	Cost	Less Enacted Div B	Cost	Remaining Req	Emergency	
Budget Activity 03: Modification of Inservice Missiles											

Class IV											
10	ICBM FUZE MOD	A									U
11	ICBM FUZE MOD Advance Procurement (CY) C (FY 2019 for FY 2022) (M)										U
12	MM III Modifications	A									U
13	AGM-65D Maverick	A		10,000							U
14	Air Launch Cruise Missile (ALCM)	A									U
15	Small Diameter Bomb	A									U
Total Modification of Inservice Missiles				10,000							
Budget Activity 04: Spares and Repair Parts											

Missile Spares and Repair Parts											
16	Replen Spares/Repair Parts	A									U
Total Spares and Repair Parts											
Budget Activity 05: Other Support											

Special Programs											

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12,000

-12,000

U

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01 Feb 2018

Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 03: Modification of Inservice Missiles									

Class IV									
10	ICBM FUZE MOD	A		6,334				6,334	U
11	ICBM FUZE MOD Advance Procurement (CY) C (FY 2019 for FY 2022) (M)								U
12	MM III Modifications	A		80,109				80,109	U
13	AGM-65D Maverick	A		10,289				10,289	U
14	Air Launch Cruise Missile (ALCM)	A		36,425				36,425	U
15	Small Diameter Bomb	A		14,086				14,086	U
Total Modification of Inservice Missiles				147,243				147,243	
Budget Activity 04: Spares and Repair Parts									

Missile Spares and Repair Parts									
16	Replen Spares/Repair Parts	A		101,153				101,153	U
Total Spares and Repair Parts				101,153				101,153	
Budget Activity 05: Other Support									

Special Programs									

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18 Special Update Programs	A	44,917	-12,000	32,917 U
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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	Cost	FY 2019 OCO Quantity	Cost	FY 2019 Total Quantity	Cost	S e c
Budget Activity 03: Modification of Inservice Missiles									

Class IV									
10	ICBM FUZE MOD	A		15,767			15,767		U
11	ICBM FUZE MOD Advance Procurement (CY) C (FY 2019 for FY 2022) (M)			4,100 (4,100)			4,100 (4,100)		U
12	MM III Modifications	A		129,199			129,199		U
13	AGM-65D Maverick	A		288		33,602	33,890		U
14	Air Launch Cruise Missile (ALCM)	A		47,632			47,632		U
15	Small Diameter Bomb	A							U
Total Modification of Inservice Missiles				196,986		33,602	230,588		
Budget Activity 04: Spares and Repair Parts									

Missile Spares and Repair Parts									
16	Replen Spares/Repair Parts	A		97,481			97,481		U
Total Spares and Repair Parts				97,481			97,481		
Budget Activity 05: Other Support									

Special Programs									

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A

188,539

188,539 U

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO)		FY 2018 PB Request with CR Adj Base		FY 2018 Total PB Requests* with CR Adj Base		FY 2018 PB Request with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
999	Classified Programs			974,231		708,176		708,176			U
	Total Other Support			1,020,356		741,093		741,093			
Budget Activity 20: Undistributed											
Undistributed											
	21 Adj to Match Continuing Resolution	A				1,529		1,529		-76,405	U
	Total Undistributed					1,529		1,529		-76,405	
	Total Missile Procurement, Air Force			2,675,116		2,297,711		2,297,711		318,995	

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO		FY 2018 Emergency Requests** Emergency		FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs		FY 2018 Remaining Req Emergency		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
999	Classified Programs										U
	Total Other Support					12,000		-12,000			
	Budget Activity 20: Undistributed										
	Undistributed										
	21 Adj to Match Continuing Resolution	A		-76,405							U
	Total Undistributed			-76,405							
	Total Missile Procurement, Air Force			318,995		12,000		-12,000			

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Appropriation: 3020F Missile Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
999	Classified Programs			708,176				708,176	U
	Total Other Support			753,093		-12,000		741,093	
Budget Activity 20: Undistributed									
Undistributed									
	21 Adj to Match Continuing Resolution	A		-74,876				-74,876	U
	Total Undistributed			-74,876				-74,876	
	Total Missile Procurement, Air Force			2,628,706		-12,000		2,616,706	

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Se c
999	Classified Programs			895,183				895,183	U
	Total Other Support			1,083,722				1,083,722	
Budget Activity 20: Undistributed									
Undistributed									
	21 Adj to Match Continuing Resolution	A							U
	Total Undistributed								
	Total Missile Procurement, Air Force			2,669,454		493,526		3,162,980	

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3	02	02	LRASM0	LRASM0.....	Volume 1 - 29
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5	02	02	MAMRA0	AMRAAM.....	Volume 1 - 59
6	02	02	PRDTA2	Predator Hellfire Missile.....	Volume 1 - 73
7	02	02	SDB000	Small Diameter Bomb.....	Volume 1 - 83
8	02	02	SDB002	SMALL DIAMETER BOMB II.....	Volume 1 - 95
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14	03	01	MALCBG	Air Launch Cruise Missile (ALCM).....	Volume 1 - 157
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Air Launch Cruise Missile (ALCM)	MALCBG	14	03	01.....	Volume 1 - 157
ICBM FUZE MOD	M30FLH	10	03	01.....	Volume 1 - 105
ICBM FUZE MOD, Advance Procurement	M30FLH	11	03	01.....	Volume 1 - 111
Industr'l Preparedns/Pol Prevention	000042	9	02	05.....	Volume 1 - 103
Joint Air-Surface Standoff Missile	JASSM0	2	02	02.....	Volume 1 - 13
LRASM0	LRASM0	3	02	02.....	Volume 1 - 29
MM III Modifications	M30MLG	12	03	01.....	Volume 1 - 115
Missile Replacement Eq-Ballistic	00099L	1	01	03.....	Volume 1 - 1
Predator Hellfire Missile	PRDTA2	6	02	02.....	Volume 1 - 73
Replen Spares/Repair Parts	999	16	04	10.....	Volume 1 - 175
SMALL DIAMETER BOMB II	SDB002	8	02	02.....	Volume 1 - 95
Sidewinder (AIM-9X)	M09HAI	4	02	02.....	Volume 1 - 37
Small Diameter Bomb	SDB000	7	02	02.....	Volume 1 - 83
Small Diameter Bomb	SDB000	15	03	01.....	Volume 1 - 173
Special Update Programs	MSPPRG	18	05	04.....	Volume 1 - 179

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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		
99999X	Low Cost Modifications	No
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
5915	ICBM Fuze Modernization	No
5910	MINUTEMAN MEECN MODIFICATION	No
5916	ICBM Cryptography Upgrade Increment II	No
5921	MM LCC Block Upgrades	No
5925	MM III Auto Switching Unit (ASU)	No
5927	Airborne Launch Control System Replacement Increment I	No
5928	T-9 Launch Facility Trainer Conversion (T-9)	No
5932	LGM-30G Remote Visual Assessment Phase II (RVA II)	No
5934	LGM-30G Flight Test Telemetry and Termination System (FT3)	No
5942	LGM-30G Launch Control Center Break-In-Kit (LCCB)	No
5943	ICBM Fuze Modernization	No
5947	A/D Switch Replacement	No

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

Model:	MAVERICK	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
650003	Laser Maverick Mod	No

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

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

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Exhibit P-40a										
Low Cost Modifications	1.537	3.750	2.000	2.000	-	2.000	2.000	2.000	2.000	2.000
AGM-86B Low Cost Mods	1.544	0.100	0.100	0.090	-	0.090	0.100	0.100	0.100	-
AGM-86B Service Life Extension Program 2	27.998	11.080	18.522	0.000	-	0.000	0.000	0.000	0.000	-
AGM-86B Service Life Extension Program 3	4.838	5.539	5.267	-	-	-	-	-	-	-
AGM-86B CALCM/ALCM Test Instrumentation Kit	99.568	5.039	12.529	4.080	-	4.080	17.611	18.984	23.699	3.888
Support Equipment	-	-	-	2.710	-	2.710	3.051	2.441	2.102	2.793
AGM-86B Service Life Extension Program 1	8.250	0.004	0.007	0.010	-	0.010	-	-	-	-
W-10 Cable	-	-	-	0.574	-	0.574	0.592	0.609	0.227	0.056
Fuze Assembly	-	-	-	4.674	-	4.674	4.975	5.145	1.375	0.000
Inertial Navigation Element (INE)	-	-	-	0.000	0.000	0.000	9.695	20.470	19.723	17.827
Exhibit P-3a										
ICBM Fuze Modernization	0.000	17.095	6.334	19.867	0.000	19.867	19.497	45.727	100.627	112.433
MINUTEMAN MEECN MODIFICATION	97.927	9.621	9.519	14.668	0.000	14.668	0.000	0.000	0.000	-
ICBM Cryptography Upgrade Increment II	0.000	31.639	29.559	63.880	0.000	63.880	29.280	14.304	50.494	-
MM LCC Block Upgrades	0.000	0.000	16.004	26.346	0.000	26.346	2.056	0.000	0.000	-
MM III Auto Switching Unit (ASU)	0.000	0.000	0.000	6.052	0.000	6.052	22.170	20.060	18.490	13.013
Airborne Launch Control System Replacement Increment I	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.859
T-9 Launch Facility Trainer Conversion (T-9)	3.098	8.712	6.024	1.058	0.000	1.058	1.940	0.000	0.000	-
LGM-30G Remote Visual Assessment Phase II (RVA II)	0.000	0.000	16.131	13.930	0.000	13.930	13.161	12.060	2.492	-
LGM-30G Flight Test Telemetry and Termination System (FT3)	0.000	14.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-

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Air Force • Budget Estimates FY 2019 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Funding for Modifications)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
LGM-30G Launch Control Center Break-In-Kit (LCCB)	0.000	0.000	0.872	1.265	0.000	1.265	0.000	0.000	0.000	-
ICBM Fuze Modernization	18.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A/D Switch Replacement	-	-	0.000	0.000	0.000	0.000	0.000	6.190	8.361	10.460
Laser Maverick Mod	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311
Warhead Arming Device (WAD)	0.000	0.000	0.000	8.590	0.000	8.590	1.367	0.024	0.024	0.024
Rotary Switch (RS)	-	0.000	0.000	7.200	0.000	7.200	7.786	7.878	8.090	16.243
Guided Missile Flight Controller (GFMC)	-	0.000	0.000	19.704	0.000	19.704	18.781	19.306	19.939	33.492
Totals (Total Obligation Authority)										
Total Obligation Authority	263.160	134.451	133.157	196.986	33.602	230.588	154.356	175.596	258.048	270.399

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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
BLSS	- Base Level Self-Sufficiency Spares
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
IPE	- Increased Performance Engine
JPALS	- Joint Precision Approach and Landing System
MAIS	- Major Automated Information System Program
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
MSIP	- Multi-Stage Improvement Program
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OFF	- Operational Flight Program
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PGSE	- Peculiar Ground Support Equipment
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

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R&M	- Reliability and Maintainability
RAA	- Required Asset Availability
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

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AFPSL	- AF Primary Standards Lab
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
SSG	- Standard Systems Group, Maxwell AFB-Gunter Annex, AL

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 2019 Air Force **Date:** February 2018

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
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	52.206	50.247	99.098	36.786	-	36.786	74.588	12.645	4.700	4.785	-	335.055
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	52.206	50.247	99.098	36.786	-	36.786	74.588	12.645	4.700	4.785	-	335.055
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	52.206	50.247	99.098	36.786	-	36.786	74.588	12.645	4.700	4.785	-	335.055

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

Initial Spares (<i>\$ in Millions</i>)	-	-	0.224	-	-	-	-	-	-	-	-	0.224
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 missile systems, including ballistic, tactical and other missile weapon 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. Programs will include analysis of Diminishing Manufacturing Sources and Material Shortages (DMSMS) risks and procurement activities related to DMSMS.

Funding for this exhibit is contained in PE 0101213F.

Ballistic Missile Items Less Than \$5 Million: Support Equipment Less Than \$5M procures low cost new, modified or replacement support equipment.

MM Power Panels (PPM): Minuteman Power Panels replaces obsolete and unsupportable power distribution panels within Launch Control Centers and Launch Facilities.

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).

Perf Assess Data Sys Comm Equip 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.

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.

Squadron Data Simulator (SDS): The SDS simulates the command and control message traffic between a MM squadron of Launch Control Centers (LCCs) and the Launch Facilities (LFs). The system is used extensively to support Strategic Missile Integration Complex (SMIC) weapon system modification testing, field anomaly investigations, and the Hardened Surveillance Electromagnetic Pulse Program (HSEP). It provides extensive faulting and troubleshooting features and verifies operational status of LCCs and LFs following site modifications or extensive site maintenance.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
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		

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. TERP will update existing drawings, specifications and technical orders to eliminate parts obsolescence and address the intended usage through 2030.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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				- / -	- / 2.108	- / 8.685	- / 3.000	- / -	- / 3.000
P-40a	MM Power Panels (PPM)				- / -	- / 7.655	- / 9.197	- / 6.106	- / -	- / 6.106
P-40a	Payload Transporter Replacement (PTR)				- / -	- / 28.772	- / 20.216	- / 7.279	- / -	- / 7.279
P-40a	Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II)				- / -	- / 0.000	- / 1.024	- / 0.250	- / -	- / 0.250
P-40a	Reentry Field Support Equipment (RFSE)				- / 48.315	- / 0.663	- / 0.310	- / 1.428	- / -	- / 1.428
P-40a	Squadron Data Simulator (SDS)				- / -	- / 0.000	- / 5.205	- / 0.000	- / -	- / 0.000
P-40a	Transporter Erector Replacement Program (TERP)				- / 3.891	- / 11.049	- / 54.461	- / 18.723	- / -	- / 18.723
P-40	Total Gross/Weapon System Cost				- / 52.206	- / 50.247	- / 99.098	- / 36.786	- / -	- / 36.786

*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:

FY19 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 program supports missile weapon systems such as the Minuteman III (LGM-30G), Advanced Medium Range Air-to-Air Missile (AIM-120), Air Launched Cruise Missile (AGM-86A), and High-Speed Anti-Radiation Missile (AGM-88A). Requirements are jointly determined by Headquarters United States Air Force (HQ USAF), Air Force Materiel Command (AFMC), Air Combat Command (ACC) and Air Force Global Strike Command (AFGSC) and are based on established allowance standards.

Items requested in FY19 are displayed on the attached P-40A. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

Ballistic Missile Items Less Than \$5 Million: Procures 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).

Payload Transporter Replacement (PTR): Procures replacement payload transporters required to sustain Minuteman III operations through fielding of the Ground Based Strategic Deterrent (GBSD).

Perf Assess Data Sys Comm Equip Interface Unit (PADS CEIU II): 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. No modem will be needed for the updated version.

Reentry Field Support Equipment (RFSE): The RFSE replaces unsupportable and unreliable support equipment and is required to sustain Minuteman III operations through fielding of Ground Based Strategic Deterrent (GBSD).

Squadron Data Simulator (SDS): SMIC SDS Replacement Program replaces failing SDS assets (a total of 12 systems). It is critical to operational certification of field LCCs and LFs, weapon system testing for modification programs, anomaly investigations, and HSEP.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
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		
<p>Transporter Erector Replacement Program (TERP): Transporter Erector Replacement Program (TERP) replaces current transporter erectors exhibiting structural integrity issues and addresses supportability issues. TERP is required to sustain Minuteman III operations through fielding of Ground Based Strategic Deterrent (GBSD).</p>		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force															Date: February 2018				
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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		-	-	-	-	-	2.108	-	-	8.685	-	-	3.000	-	-	-	-	-	3.000
Subtotal: Various			-	-	-	-	-	2.108	-	-	8.685	-	-	3.000	-	-	-	-	-	3.000
Total			-	-	-	-	-	2.108	-	-	8.685	-	-	3.000	-	-	-	-	-	3.000

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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 (MMPP)	A		-	-	-	-	-	7.655	-	-	9.197	-	-	6.106	-	-	-	-	-	6.106
Subtotal: LGM-30G			-	-	-	-	-	7.655	-	-	9.197	-	-	6.106	-	-	-	-	-	6.106
Total			-	-	-	-	-	7.655	-	-	9.197	-	-	6.106	-	-	-	-	-	6.106

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

Remarks:
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 (TPPM) to support PPM.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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		-	-	-	9.590	3	28.772	10.108	2	20.216	-	-	7.279	-	-	-	-	-	7.279
Subtotal: LGM-30G			-	-	-	-	-	28.772	-	-	20.216	-	-	7.279	-	-	-	-	-	7.279
Total			-	-	-	-	-	28.772	-	-	20.216	-	-	7.279	-	-	-	-	-	7.279

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

Remarks:
 The LGM-30G 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. This support equipment is required to sustain Minuteman III operations through fielding of the Ground Based Strategic Deterrent (GBSD). PTR initial costs in FY17 include special tools for manufacturing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force													Date: February 2018					
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)						

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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		-	-	-	-	-	0.000	0.035	29	1.024	-	-	0.250	-	-	-	-	-	0.250
Subtotal: LGM-30G			-	-	-	-	-	0.000	-	-	1.024	-	-	0.250	-	-	-	-	-	0.250
Total			-	-	-	-	-	0.000	-	-	1.024	-	-	0.250	-	-	-	-	-	0.250

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

Remarks:
 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. No modem will be needed for the updated version.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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		-	-	48.315	-	-	0.663	-	-	0.310	-	-	1.428	-	-	-	-	-	1.428
Subtotal: LGM-30G			-	-	48.315	-	-	0.663	-	-	0.310	-	-	1.428	-	-	-	-	-	1.428
Total			-	-	48.315	-	-	0.663	-	-	0.310	-	-	1.428	-	-	-	-	-	1.428

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

Remarks:

The Reentry System Field Support Equipment (RFSE) program is producing 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 will consist 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 will be done to fulfill the requirements of AFGSC.

The test sets will be used to test and functionally check out the MK12A and MK21 Reentry Systems and the MK12A Reentry Vehicle's Forward Sections. The test sets support the Minuteman III Intercontinental Ballistic Missile (ICBM) weapon system ensuring its viability to 2030 and beyond. The RSTC will be able to check-out all possible SERV RS configurations. The MK12A Forward Section will be checked-out by the FSTS, allowing simultaneous processing efforts to take place, reducing overall processing time in the Weapon Storage Area. The MK21 Forward Sections will continue to be checked by the current SERV Arming and Fuzing Assembly Test Set (AFATS).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

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

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																				
Squadron Data Simulator (SDS)	A		-	-	-	-	-	0.000	-	-	5.205	-	-	0.000	-	-	-	-	-	0.000
Subtotal: LGM-30G			-	-	-	-	-	0.000	-	-	5.205	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.000	-	-	5.205	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:

The SDS simulates the command and control message traffic between a MM squadron of Launch Control Centers (LCCs) and the Launch Facilities (LFs). The system is used extensively to support Strategic Missile Integration Complex (SMIC) weapon system modification testing, field anomaly investigations, and the Hardened Surveillance Electromagnetic Pulse Program (HSEP). It provides extensive faulting and troubleshooting features and verifies operational status of LCCs and LFs following site modifications or extensive site maintenance. SMIC SDS Replacement Program replaces failing SDS assets (a total of 12 systems). It is critical to operational certification of field LCCs and LFs, weapon system testing for modification programs, anomaly investigations, and HSEP.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force													Date: February 2018					
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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		-	-	3.891	5.525	2	11.049	5.446	10	54.461	4.681	4	18.723	-	-	-	4.681	4	18.723
Subtotal: LGM-30G			-	-	3.891	-	-	11.049	-	-	54.461	-	-	18.723	-	-	-	-	-	18.723
Total			-	-	3.891	-	-	11.049	-	-	54.461	-	-	18.723	-	-	-	-	-	18.723

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

Remarks:
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). The development contract, awarded 22 May 2013, included five production options.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2,574	360	360	312	48	360	360	289	327	270	-	4,900
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,669.008	431.645	441.367	430.708	61.600	492.308	458.525	396.550	438.335	450.234	218.869	5,996.841
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,669.008	431.645	441.367	430.708	61.600	492.308	458.525	396.550	438.335	450.234	218.869	5,996.841
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,669.008	431.645	441.367	430.708	61.600	492.308	458.525	396.550	438.335	450.234	218.869	5,996.841

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

Initial Spares (<i>\$ in Millions</i>)	0.806	0.318	0.424	0.425	-	0.425	0.434	0.440	0.449	0.457	-	3.753
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	1.037	1.199	1.226	1.380	1.283	1.368	1.274	1.372	1.340	1.668	-	1.224

Description:

The Joint Air-to-Surface Standoff Missile (JASSM) is an ACAT 1 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. There are two variants of the JASSM missile: JASSM baseline and JASSM extended range (JASSM-ER). Aircraft integration for the baseline missile is complete on the B-52H, F-16 (Block 40-52), B-1, B-2, and F-15E. Aircraft integration for JASSM-ER is complete on the B-1B. Objective aircraft are the B-52H, F16C/D (Block 40-52), B-2 and F-15E. JASSM Lots 1 - 10 are covered under a warranty; 15 years for JASSM-ER and 20 years for JASSM baseline. 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 initial 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. Total procurement of 4,900 includes JASSM baseline missiles (2,034) and JASSM-ER missiles (2,866). However, funding and quantity information prior to FY16 is identified in P-1 line item 654515.

The JASSM program consists of two separable increments, JASSM baseline and JASSM extended range (JASSM-ER) - both with separate milestone decision points. Each version is broken out in P-5, P-5A, and P-21 in this document. The quantity, flyaway unit cost and weapon system unit cost lines in P-40 reflect JASSM PE (0207325F) only, which is a combination of both JASSM baseline and JASSM-ER. JASSM baseline has been in Full Rate Production (FRP). JASSM-ER started Full Rate Production in FY15, and JASSM-ER achieved Initial Operational Capability (IOC) in December 2014 on the B-1B. FY18 will be the 16th production lot for the JASSM program. The program also plans to use some funds to evaluate Diminishing Manufacturing Sources (DMS) material shortages, 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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	P-5a, P-21	A		2,034 / 1,836.328	- / -	- / -	- / -	- / -	- / -
P-5	Joint Air-Surface Standoff Missile	P-5a, P-21	A		540 / 832.680	360 / 431.645	360 / 441.367	312 / 430.708	48 / 61.600	360 / 492.308
P-40	Total Gross/Weapon System Cost				2,574 / 2,669.008	360 / 431.645	360 / 441.367	312 / 430.708	48 / 61.600	360 / 492.308

*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:
 FY19 funding totals include \$430.708M to procure 312 missiles and \$61.6M in Overseas Contingency Operations (OCO) to procure 48 missiles. Production will remain at the most efficient rate, procuring 360 JASSM-ER missiles total.

Test Support/Reliability/Obsolescence increase due to inventory level increases. The program will continue reliability initiatives including Weapon System Evaluation Program (WSEP) flight testing of current production 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 2019 Air Force		Date: February 2018
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

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	-	-	-	-	-
<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)		0.903	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Baseline All-UP-Round ^(†)	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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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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
JASSM Baseline All-UP-Round ^(t)		2014	Lockheed Martin / Troy, Alabama	SS / FFP	AFLCMC/PK Eglin AFB, FL	Jun 2014	Apr 2016	120	0.843	Y		Jul 2012
JASSM Baseline All-UP-Round ^(t)		2015	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Oct 2015	Feb 2017	100	0.860	Y		Jul 2012
JASSM Baseline All-UP-Round ^(t)		2016	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Dec 2015	Jan 2018	100	0.842	Y		Jan 2014

^(t) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
JASSM Baseline All-UP-Round																															
Prior Years Deliveries: 1714																															
	1	2014	AF ⁽¹⁾	120	0	120																								120	
	1	2014	FMS ^(‡)	4	0	4																								4	
	1	2014	Total	124	0	124																								124	
	1	2015	AF	100	0	100																								100	
	1	2015	FMS ^(‡)	40	0	40																								40	
	1	2015	Total	140	0	140																								140	
	1	2016	AF	100	0	100																								100	
	1	2016	FMS ^(‡)	46	0	46																								46	
	1	2016	Total	146	0	146																								146	
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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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Cost Elements <i>(Units in Each)</i>					Fiscal Year 2016													Fiscal Year 2017													BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JASSM Baseline All-UP-Round																																	
Prior Years Deliveries: 1714																																	
1	2014	AF ⁽¹⁾	120	0	120	-	-	-	-	-	-	68	-	-	-	-	-	-	36	11	5								0				
1	2014	FMS ⁽²⁾	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-								0				
1	2014	Total	124	0	124	-	-	-	-	-	-	68	-	-	-	-	-	-	38	13	5	-	-	-	-	-	-	-	0				
1	2015	AF	100	0	100	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	5	-	16	12	11	4	16	23				
1	2015	FMS ⁽²⁾	40	0	40	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	6	7	7	6	0				
1	2015	Total	140	0	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	5	7	23	18	18	11	22	23				
1	2016	AF	100	0	100			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100				
1	2016	FMS ⁽²⁾	46	0	46			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46				
1	2016	Total	146	0	146			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146				
						O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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

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							
JASSM Baseline All-UP-Round																																					
Prior Years Deliveries: 1714																																					
1	2014	AF ⁽¹⁾	120	120	0																																0
1	2014	FMS ⁽²⁾	4	4	0																																0
1	2014	Total	124	124	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2015	AF	100	77	23	16	7																													0	
1	2015	FMS ⁽²⁾	40	40	0	-	-																													0	
1	2015	Total	140	117	23	16	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2016	AF	100	0	100	-	-	-	14	10	10	10	10	10	10	10	8	8	-	-																0	
1	2016	FMS ⁽²⁾	46	0	46	-	-	-	-	-	-	7	6	5	3	3	2	6	7	7																0	
1	2016	Total	146	0	146	-	-	-	14	10	10	17	16	15	13	13	10	14	7	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 2019 Air Force	Date: February 2018
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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]: JASSM0 JASSM Baseline
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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		360	360	0	0	0	0	0	0	3	25	28

(‡) 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 2016 loaded in the month of first delivery.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
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:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	540	360	360	312	48	360
Gross/Weapon System Cost (\$ in Millions)	832.680	431.645	441.367	430.708	61.600	492.308
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	832.680	431.645	441.367	430.708	61.600	492.308
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	832.680	431.645	441.367	430.708	61.600	492.308

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

Initial Spares (\$ in Millions)	0.806	0.318	0.424	0.425	-	0.425
Gross/Weapon System Unit Cost (\$ in Millions)	1.542	1.199	1.226	1.380	1.283	1.368

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Extended Range (ER) All-Up-Round ^(f)	1.322	540	713.880	1.146	360	412.606	1.112	360	400.153	1.100	312	343.200	1.100	48	52.800	1.100	360	396.000
Engineering Change Orders	-	-	-	-	-	-	-	-	6.171	-	-	6.118	-	-	-	-	-	6.118
<i>Subtotal: Recurring Cost</i>	-	-	713.880	-	-	412.606	-	-	406.324	-	-	349.318	-	-	52.800	-	-	402.118
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	713.880	-	-	412.606	-	-	406.324	-	-	349.318	-	-	52.800	-	-	402.118
Support - Support End Item Cost																		
Program Management Administration (PMA)-A&AS	-	-	3.352	-	-	3.625	-	-	3.042	-	-	3.128	-	-	-	-	-	3.128
Program Management Administration (PMA)-Gov't Cost	-	-	1.577	-	-	1.339	-	-	1.053	-	-	1.083	-	-	-	-	-	1.083
Test Support/Reliability/Obsolescence	-	-	102.077	-	-	14.059	-	-	21.919	-	-	67.895	-	-	8.800	-	-	76.695
Prime Contractor Support	-	-	11.794	-	-	0.016	-	-	9.029	-	-	9.284	-	-	-	-	-	9.284
<i>Subtotal: Support - Support End Item Cost</i>	-	-	118.800	-	-	19.039	-	-	35.043	-	-	81.390	-	-	8.800	-	-	90.190
Gross/Weapon System Cost	1.542	540	832.680	1.199	360	431.645	1.226	360	441.367	1.380	312	430.708	1.283	48	61.600	1.368	360	492.308

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
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 2019 Air Force **Date:** February 2018

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
JASSM Extended Range (ER) All-Up-Round ^(†)		2014	Lockheed Martin / Troy, Alabama	SS / FFP	AFLCMC/PK Eglin AFB, FL	Jun 2014	Jun 2016	60	1.497	Y		Jul 2012
JASSM Extended Range (ER) All-Up-Round ^(†)		2015	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Oct 2015	Mar 2017	140	1.254	Y		Jan 2014
JASSM Extended Range (ER) All-Up-Round ^(†)		2016	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Dec 2015	Jan 2018	240	1.173	Y		Jan 2014
JASSM Extended Range (ER) All-Up-Round ^(†)		2017	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	May 2017	Nov 2018	360	1.146	Y		Aug 2016
JASSM Extended Range (ER) All-Up-Round ^(†)		2018	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2018	Sep 2019	360	1.112	Y		Jul 2017
JASSM Extended Range (ER) All-Up-Round ^(†)		2019	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2019	Jul 2020	312	1.100	Y		Jul 2018
JASSM Extended Range (ER) All-Up-Round ^(†)	✓	2019	Lockheed Martin / Troy, Alabama	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Mar 2019	Jul 2020	48	1.100	Y		Jul 2018

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 2014												Fiscal Year 2015												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
JASSM Extended Range (ER) All-Up-Round																															
Prior Years Deliveries: 100																															
1	2014	AF ⁽²⁾		60	0	60																							60		
1	2015	AF		140	0	140																							140		
1	2016	AF		240	0	240																							240		
1	2017	AF		360	0	360																							360		
1	2018	AF		360	0	360																							360		
1	2019	AF		312	0	312																							312		
1	2019	FMS ^(*)		40	0	40																							40		
1	2019	Total Base		352	0	352																							352		
✓ 1	2019	AF		48	0	48																							48		
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2016												Fiscal Year 2017												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
JASSM Extended Range (ER) All-Up-Round																															
Prior Years Deliveries: 100																															
1	2014	AF ⁽²⁾	60	0	60	-	-	-	-	-	-	-	-	-	7	-	-	-	-	28	4	1	1	-	19	-	-	-	0		
1	2015	AF	140	0	140	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	7	15	7	14	21	67
1	2016	AF	240	0	240			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	
1	2017	AF	360	0	360																					A -	-	-	-	360	
1	2018	AF	360	0	360																									360	
1	2019	AF	312	0	312																									312	
1	2019	FMS ^(*)	40	0	40																									40	
1	2019	Total Base	352	0	352																									352	
✓ 1	2019	AF	48	0	48																									48	
						O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2018														Fiscal Year 2019														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
JASSM Extended Range (ER) All-Up-Round																																			
Prior Years Deliveries: 100																																			
1	2014	AF ⁽²⁾		60	60	0																							0						
1	2015	AF		140	73	67	15	30	22																				0						
1	2016	AF		240	0	240	-	-	-	24	24	24	24	24	24	24	24	24	24										0						
1	2017	AF		360	0	360	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	36	36	36	36	36	36	36	0						
1	2018	AF		360	0	360																						36	324						
1	2019	AF		312	0	312																							312						
1	2019	FMS ^(*)		40	0	40																							40						
1	2019	Total Base		352	0	352																							352						
✓	1	2019	AF	48	0	48																							48						
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2020													Fiscal Year 2021													BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020													Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JASSM Extended Range (ER) All-Up-Round																																	
Prior Years Deliveries: 100																																	
	1	2014	AF ⁽²⁾	60	60	0																							0				
	1	2015	AF	140	140	0																							0				
	1	2016	AF	240	240	0																							0				
	1	2017	AF	360	360	0																							0				
	1	2018	AF	360	36	324	36	36	36	36	36	36	36	36															0				
	1	2019	AF	312	0	312	-	-	-	-	-	-	-	-	16	16	40	40	40	40	40	40	40	40	20	20			0				
	1	2019	FMS ^(*)	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20					0				
	1	2019	Total Base	352	0	352	-	-	-	-	-	-	-	-	16	16	40	40	40	40	40	40	40	40	-	-	-	-	0				
✓	1	2019	AF	48	0	48	-	-	-	-	-	-	-	-	24	24													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 2019 Air Force	Date: February 2018
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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 2019	1-8-5 For 2019	MAX For 2019	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	360	360	0	0	0	0	0	6	16	22

(†) 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:

(2) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	19	15	12	-	12	-	-	-	-	-	46
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	71.411	44.728	44.185	0.000	44.185	0.000	0.000	0.000	0.000	0.000	160.324
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	71.411	44.728	44.185	0.000	44.185	0.000	0.000	0.000	0.000	0.000	160.324
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	71.411	44.728	44.185	0.000	44.185	0.000	0.000	0.000	0.000	0.000	160.324

(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>)	-	3.758	2.982	3.682	-	3.682	-	-	-	-	-	3.485

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 is developed based on JASSM-ER (Joint Air-to-Surface Standoff Missile-Extended Range). Early operational capability for the LRASM is slated for 2018 on the U.S. Air Force B-1 Lancer and 2019 on the U.S. Navy F/A-18E/F Super Hornet.

The Department will transition the Defense Advanced Research Projects Agency (DARPA)/Office of Naval Research (ONR) LRASM demonstration design into a fielded weapon system which will support an increased offensive strike capability with an Early Operational Capability (EOC) in 2018 for Air Force platforms and 2019 on Navy platforms. FY17 was the first year of LRASM procurement and the program procures missiles over a three year period. The program is also evaluating Diminishing Manufacturing Sources Material Shortages (DMSMS) and reviewing obsolescence issues.

Funding for this exhibit is contained in PE 0207325F, LRASM

Additional production 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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		- / -	19 / 71.411	15 / 44.728	12 / 44.185	- / 0.000	12 / 44.185
P-40	Total Gross/Weapon System Cost				- / -	19 / 71.411	15 / 44.728	12 / 44.185	- / 0.000	12 / 44.185

*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 funds in FY19 will procure 12 LRASM 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 2019 Air Force		Date: February 2018
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:			
Resource Summary		Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (<i>Units in Each</i>)		-	19	15	12	-	12
Gross/Weapon System Cost (<i>\$ in Millions</i>)		-	71.411	44.728	44.185	0.000	44.185
Less PY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)		-	71.411	44.728	44.185	0.000	44.185
Plus CY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)		-	71.411	44.728	44.185	0.000	44.185
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (<i>\$ in Millions</i>)		-	0.000	0.000	0.000	-	0.000
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)		-	3.758	2.982	3.682	-	3.682

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
All-Up-Round ^(t)	-	-	-	3.758	19	71.411	2.959	15	44.378	3.653	12	43.835	-	-	0.000	3.653	12	43.835
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	71.411	-	-	44.378	-	-	43.835	-	-	0.000	-	-	43.835
<i>Subtotal: Hardware - LRASM Cost</i>	-	-	-	-	-	71.411	-	-	44.378	-	-	43.835	-	-	0.000	-	-	43.835
Support - LRASM0 Cost																		
Program Management Administration (PMA)-A&AS	-	-	-	-	-	0.000	-	-	0.240	-	-	0.240	-	-	0.000	-	-	0.240
Program Management Administration (PMA)-Gov't Cost	-	-	-	-	-	0.000	-	-	0.110	-	-	0.110	-	-	0.000	-	-	0.110
<i>Subtotal: Support - LRASM0 Cost</i>	-	-	-	-	-	0.000	-	-	0.350	-	-	0.350	-	-	0.000	-	-	0.350
Gross/Weapon System Cost	-	-	-	3.758	19	71.411	2.982	15	44.728	3.682	12	44.185	-	-	0.000	3.682	12	44.185

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

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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
All-Up-Round ^(†)		2017	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Jul 2017	Sep 2018	19	3.758	N	Oct 2015	Oct 2015
All-Up-Round ^(†)		2018	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Jun 2018	Aug 2019	15	2.959	N	Jul 2017	Jan 2017
All-Up-Round ^(†)		2019	Lockheed Martin / Troy, AL	SS / FPIF	Eglin AFB	Jun 2019	Aug 2020	12	3.653	N	Jul 2018	Jan 2018

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 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
All-Up-Round																															
1		2017	AF	19	0	19																							10	9	
1		2017	NAVY (+)	10	0	10																							-	10	
1		2017	Total	29	0	29																							10	19	
1		2018	AF	15	0	15																							-	15	
1		2018	NAVY (+)	25	0	25																							-	25	
1		2018	Total	40	0	40																							10	40	
1		2019	AF	12	0	12																								12	
1		2019	NAVY (+)	25	0	25																								25	
1		2019	Total	37	0	37																								37	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
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
All-Up-Round																															
1		2017	AF	19	10	9	4	4	1	-	-	-																	0		
1		2017	NAVY (+)	10	0	10	-	-	-	2	4	4																	0		
1		2017	Total	29	10	19	4	4	1	2	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
1		2018	AF	15	0	15	-	-	-	-	-	-	-	-	3	2	4	3	3	-	-	-	-	-					0		
1		2018	NAVY (+)	25	0	25	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	3					0		
1		2018	Total	40	0	40	-	-	-	-	-	-	-	2	2	5	4	6	5	5	2	2	2	3	-	-	-	0			
1		2019	AF	12	0	12								A	-	-	-	-	-	-	-	-	-	-	-	-	2	2	8		
1		2019	NAVY (+)	25	0	25								A	-	-	-	-	-	-	-	-	-	-	2	2	2	2	17		
1		2019	Total	37	0	37								-	-	-	-	-	-	-	-	-	-	-	2	2	4	4	25		
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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

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																															
1		2017	AF	19	19	0																							0		
1		2017	NAVY (+)	10	10	0																							0		
1		2017	Total	29	29	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1		2018	AF	15	15	0																							0		
1		2018	NAVY (+)	25	25	0																							0		
1		2018	Total	40	40	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1		2019	AF	12	4	8	4	4	-	-	-	-																	0		
1		2019	NAVY (+)	25	8	17	2	2	2	2	2	2	3																0		
1		2019	Total	37	12	25	6	6	2	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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 2019 Air Force								Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 02 / 2				P-1 Line Item Number / Title: LRASMO / LRASMO				Item Number / Title [DODIC]: LRASMO				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2019	1-8-5 For 2019	MAX For 2019	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Troy, AL	12	48	48	0	0	0	0	0	9	14	23

(‡) 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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,472	287	310	256	-	256	355	339	184	149	-	3,352
Gross/Weapon System Cost (<i>\$ in Millions</i>)	667.380	127.438	125.350	121.253	0.000	121.253	160.408	164.987	108.441	118.413	0.000	1,593.670
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	667.380	127.438	125.350	121.253	0.000	121.253	160.408	164.987	108.441	118.413	0.000	1,593.670
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	667.380	127.438	125.350	121.253	0.000	121.253	160.408	164.987	108.441	118.413	0.000	1,593.670

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

Initial Spares (<i>\$ in Millions</i>)	8.625	7.684	5.720	4.255	-	4.255	4.290	1.864	1.902	1.936	-	36.276
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.398	0.413	0.381	0.445	-	0.445	0.431	0.461	0.543	0.736	-	0.434
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.453	0.444	0.404	0.474	-	0.474	0.452	0.487	0.589	0.795	-	0.475

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). Air superiority in short range engagements is essential to the Department of the Air Force, and this missile provides first shot, first kill opportunities against enemy targets employing IR countermeasures. Anti-Tamper features have been incorporated to protect improvements inherent in this design. The AIM-9X Block II missile is critical to project power and win decisively in accordance with the Fiscal Year 2015 Defense Planning Guidance and Chief of Naval Operations' Navigation Plan for 2015-2019.

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 2366 A/B certification and Acquisition Program Baseline for AIM-9X Block II was signed December 23, 2011, and the Block I program was terminated. In August 2015, the program received approval for Full Rate Production (FRP), and the Acquisition Program Baseline was re-established. FRP-3 was awarded in 2017. The program plans to award FRP-4 in 2018 and FRP-5 in 2019.

In FY 2017, the program procured 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 will be produced on the same production line as the regular AIM-9X Block II missile. For contracting purposes, the nomenclature of the AIM-9X Block II missile will be identified as AIM-9X-2 and the AIM-9X Block II+ missile will be identified as AIM-9X-3.

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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		1,472 / 667.380	287 / 127.438	310 / 125.350	256 / 121.253	- / 0.000	256 / 121.253
P-40	Total Gross/Weapon System Cost				1,472 / 667.380	287 / 127.438	310 / 125.350	256 / 121.253	- / 0.000	256 / 121.253

*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 2019 provides funding to procure the fifth lot of Full Rate Production (FRP) AIM-9X Block II (Blk II) missiles, as well as the third lot of AIM-9X Block II Plus (Blk II+) missiles for the Navy. FY 2019 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, US Air Force and US Army 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) as such:

The US Air Force will procure 5,030 total missiles under Budget Line Item 3479 (P1-4): 1,678 Block I missiles (1,093 AURs and 585 CATMs) and 3,352 Block II missiles, including Block II+ (2,859 AURs and 493 CATMs). In addition, the US Air Force procured 67 Block I missiles in FY 2001 under the AIM-9M Modification program (45 AURs and 22 CATMs).

The US Navy will procure 3,937 total missiles under Budget Line Item 2209: 1,289 Block I missiles (885 AURs and 404 CATMs) and 2,648 Block II missiles, including Block II+ (1591 AURs and 581 CATMs). In addition, the US Navy procured 63 Block I missiles in FY 2001 under the AIM-9M Modification program (48 AURs and 15 CATMs).

The US Army will begin to procure AIM-9X Block II missiles under Budget Line Item C6100 (P1-3).

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 2019 Air Force											Date: February 2018					
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 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total		
Procurement Quantity (<i>Units in Each</i>)				1,472		287		310		256		-		256		
Gross/Weapon System Cost (<i>\$ in Millions</i>)				667.380		127.438		125.350		121.253		0.000		121.253		
Less PY Advance Procurement (<i>\$ in Millions</i>)				-		-		-		-		-		-		
Net Procurement (P-1) (<i>\$ in Millions</i>)				667.380		127.438		125.350		121.253		0.000		121.253		
Plus CY Advance Procurement (<i>\$ in Millions</i>)				-		-		-		-		-		-		
Total Obligation Authority (<i>\$ in Millions</i>)				667.380		127.438		125.350		121.253		0.000		121.253		
<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>)				8.625		7.684		5.720		4.255		-		4.255		
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)				0.453		0.444		0.404		0.474		-		0.474		

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 ^(f)	0.405	1,120	453.122	0.379	160	60.580	0.371	171	63.442	0.378	176	66.604	-	-	0.000	0.378	176	66.604
Captive Air Training Missile (CATM) - Block II ^(f)	0.227	352	79.973	0.196	77	15.097	0.213	64	13.625	-	-	0.000	-	-	-	-	-	0.000
Engineering Change Orders - Block II	-	-	2.038	-	-	0.000	-	-	0.000	-	-	2.142	-	-	-	-	-	2.142
Diminishing Manufacturing Sources	-	-	2.711	-	-	1.406	-	-	1.472	-	-	1.610	-	-	-	-	-	1.610
Government Cost (GFE & Testing) - Block II	-	-	0.454	-	-	0.096	-	-	0.110	-	-	0.116	-	-	-	-	-	0.116
Special Test/Special Tooling Equipment - Block II	-	-	11.866	-	-	3.674	-	-	2.002	-	-	0.331	-	-	-	-	-	0.331
Missile Containers - Block II	0.013	410	5.194	0.012	81	0.966	0.012	87	1.048	0.012	71	0.875	-	-	-	0.012	71	0.875
Non-Recurring Engineering - Block II	-	-	29.789	-	-	9.623	-	-	0.000	-	-	2.831	-	-	-	-	-	2.831
All Up Round - Block II Plus ^(f)	-	-	0.000	0.540	50	26.993	0.483	75	36.260	0.493	80	39.411	-	-	-	0.493	80	39.411
<i>Subtotal: Recurring Cost</i>	-	-	585.147	-	-	118.435	-	-	117.959	-	-	113.920	-	-	0.000	-	-	113.920

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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>	-	-	585.147	-	-	118.435	-	-	117.959	-	-	113.920	-	-	0.000	-	-	113.920
<i>Support - Support End Item Cost</i>																		
Production Tech Support	-	-	19.553	-	-	3.231	-	-	2.021	-	-	2.062	-	-	-	-	-	2.062
Peculiar Support Equipment - Block II	-	-	0.061	-	-	0.094	-	-	0.033	-	-	0.034	-	-	-	-	-	0.034
Test Equipment - Block II	-	-	10.322	-	-	0.871	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PMA Contractor Services - Block II	-	-	9.227	-	-	0.852	-	-	1.263	-	-	1.240	-	-	-	-	-	1.240
PMA Other Government Costs - Block II	-	-	43.070	-	-	3.955	-	-	4.045	-	-	3.968	-	-	-	-	-	3.968
Training Support - Block II	-	-	0.000	-	-	0.000	-	-	0.029	-	-	0.029	-	-	-	-	-	0.029
<i>Subtotal: Support - Support End Item Cost</i>	-	-	82.233	-	-	9.003	-	-	7.391	-	-	7.333	-	-	-	-	-	7.333
Gross/Weapon System Cost	0.453	1,472	667.380	0.444	287	127.438	0.404	310	125.350	0.474	256	121.253	-	-	0.000	0.474	256	121.253

Remarks:

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

The FY19 Contract is scheduled for award in February 2019 and procures the Full Rate Production (FRP) missile.

Quantities decreased in FY19 - FY23 due to increased costs associated with the AIM-9X Block II+ 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.

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

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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 ^(†)		2013	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Aug 2013	Sep 2014	92	0.418	Y		Jan 2012
All Up Round - Block II ^(†)		2014	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jun 2014	Jan 2016	170	0.396	Y		Jan 2013
All Up Round - Block II ^(†)		2015	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Sep 2015	Jan 2017	266	0.401	Y		Jan 2014
All Up Round - Block II ^(†)		2016	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jul 2016	Apr 2018	450	0.371	Y		Jan 2015
All Up Round - Block II ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2017	Apr 2019	160	0.379	Y		Jan 2016
All Up Round - Block II ^(†)		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Mar 2018	Apr 2020	171	0.371	Y		Jan 2017
All Up Round - Block II ^(†)		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2019	Apr 2021	176	0.378	Y		Jan 2018
Captive Air Training Missile (CATM) - Block II ^(†)		2013	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Aug 2013	Sep 2014	58	0.208	Y		Jan 2012
Captive Air Training Missile (CATM) - Block II ^(†)		2014	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jun 2014	Dec 2015	55	0.208	Y		Jan 2013
Captive Air Training Missile (CATM) - Block II ^(†)		2015	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Sep 2015	Jan 2017	67	0.211	Y		Jan 2014
Captive Air Training Missile (CATM) - Block II ^(†)		2016	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Jul 2016	Apr 2018	81	0.193	Y		Jan 2015
Captive Air Training Missile (CATM) - Block II ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2017	Apr 2019	77	0.196	Y		Jan 2016
Captive Air Training Missile (CATM) - Block II ^(†)		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2018	Apr 2020	64	0.213	Y		Jan 2017
All Up Round - Block II Plus ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2017	Apr 2019	50	0.540	Y		Jan 2016
All Up Round - Block II Plus ^(†)		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2018	Apr 2020	75	0.483	Y		Jan 2017
All Up Round - Block II Plus ^(†)		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	NAVAIR	Feb 2019	Apr 2021	80	0.493	Y		Jan 2018

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 <i>(Units in Each)</i>						Fiscal Year 2013													Fiscal Year 2014													B A L A N C E	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	Calendar Year 2013													Calendar Year 2014													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
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 (+)	74	0	74																							74				
	3	2018	NAVY (+)	12	0	12																							12				
	3	2018	Total	161	0	161																							161				
	3	2019	AF	80	0	80																							80				
	3	2019	FMS (+)	50	0	50																							50				
	3	2019	NAVY (+)	8	0	8																							8				
	3	2019	Total	138	0	138																							138				
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2015													Fiscal Year 2016													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
All Up Round - Block II																																	
Prior Years Deliveries: 142																																	
1	2013	AF ⁽¹⁾	92	92	0																								0				
1	2013	NAVY ⁽⁺⁾⁽²⁾	92	92	0																								0				
1	2013	FMS ⁽⁺⁾⁽³⁾	170	170	0																								0				
1	2013	Total	354	354	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1	2014	AF ⁽⁴⁾	170	0	170																								0				
1	2014	NAVY ⁽⁺⁾⁽⁵⁾	167	0	167																								0				
1	2014	FMS ⁽⁺⁾⁽⁶⁾	195	0	195																								0				
1	2014	Total	532	0	532																								0				
1	2015	AF	266	0	266																								266				
1	2015	NAVY ⁽⁺⁾	102	0	102																								102				
1	2015	FMS ⁽⁺⁾	102	0	102																								102				
1	2015	Total	470	0	470																								470				
1	2016	AF	450	0	450																								450				
1	2016	FMS ⁽⁺⁾	64	0	64																								64				
1	2016	ARMY ⁽⁺⁾	7	0	7																								7				
1	2016	NAVY ⁽⁺⁾	165	0	165																								165				
1	2016	Total	686	0	686																								686				
1	2017	AF	160	0	160																								160				
1	2017	FMS ⁽⁺⁾	120	0	120																								120				
1	2017	NAVY ⁽⁺⁾	65	0	65																								65				
1	2017	Total	345	0	345																								345				
1	2018	AF	171	0	171																								171				
1	2018	FMS ⁽⁺⁾	230	0	230																								230				
1	2018	ARMY ⁽⁺⁾	125	0	125																								125				
1	2018	NAVY ⁽⁺⁾	133	0	133																								133				
1	2018	Total	659	0	659																								659				
1	2019	AF	176	0	176																								176				
1	2019	ARMY ⁽⁺⁾	286	0	286																								286				
						O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 <i>(Units in Each)</i>						Fiscal Year 2015													Fiscal Year 2016													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
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 (+)	74	0	74																							74				
	3	2018	NAVY (+)	12	0	12																							12				
	3	2018	Total	161	0	161																							161				
	3	2019	AF	80	0	80																							80				
	3	2019	FMS (+)	50	0	50																							50				
	3	2019	NAVY (+)	8	0	8																							8				
	3	2019	Total	138	0	138																							138				
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2017														Fiscal Year 2018														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
All Up Round - Block II																																			
Prior Years Deliveries: 142																																			
1	2013	AF ⁽¹⁾	92	92	0																													0	
1	2013	NAVY ^(*) (2)	92	92	0																													0	
1	2013	FMS ^(*) (3)	170	170	0																													0	
1	2013	Total	354	354	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2014	AF ⁽⁴⁾	170	170	0																													0	
1	2014	NAVY ^(*) (5)	167	167	0																													0	
1	2014	FMS ^(*) (6)	195	195	0																													0	
1	2014	Total	532	532	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2015	AF	266	0	266	-	-	-	8	8	-	-	-	-	42	42	42	42	40	42														0	
1	2015	NAVY ^(*)	102	0	102	-	-	-	11	36	20	-	-	34	-	-	-	-	-	1													0		
1	2015	FMS ^(*)	102	0	102	-	-	-	-	-	-	-	-	17	17	17	17	17	17														0		
1	2015	Total	470	0	470	-	-	-	19	44	20	-	-	34	59	59	59	59	57	60												0			
1	2016	AF	450	0	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225		
1	2016	FMS ^(*)	64	0	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	5	6	5	5	6	5	5				16		
1	2016	ARMY ^(*)	7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	-		4		
1	2016	NAVY ^(*)	165	0	165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	14	14	14	13	14					83		
1	2016	Total	686	0	686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	5	58	56	58	57	57	56			328			
1	2017	AF	160	0	160																												160		
1	2017	FMS ^(*)	120	0	120																												120		
1	2017	NAVY ^(*)	65	0	65																												65		
1	2017	Total	345	0	345																												345		
1	2018	AF	171	0	171																												171		
1	2018	FMS ^(*)	230	0	230																												230		
1	2018	ARMY ^(*)	125	0	125																												125		
1	2018	NAVY ^(*)	133	0	133																												133		
1	2018	Total	659	0	659																												659		
1	2019	AF	176	0	176																												176		
1	2019	ARMY ^(*)	286	0	286																												286		
						O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 <i>(Units in Each)</i>						Fiscal Year 2017														Fiscal Year 2018														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
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 (+)	74	0	74																								74					
	3	2018	NAVY (+)	12	0	12																								12					
	3	2018	Total	161	0	161																								161					
	3	2019	AF	80	0	80																								80					
	3	2019	FMS (+)	50	0	50																								50					
	3	2019	NAVY (+)	8	0	8																								8					
	3	2019	Total	138	0	138																								138					
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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: 142																																			
1	2013	AF ⁽¹⁾	92	92	0																									0					
1	2013	NAVY ^(*) (2)	92	92	0																									0					
1	2013	FMS ^(*) (3)	170	170	0																									0					
1	2013	Total	354	354	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2014	AF ⁽⁴⁾	170	170	0																									0					
1	2014	NAVY ^(*) (5)	167	167	0																									0					
1	2014	FMS ^(*) (6)	195	195	0																									0					
1	2014	Total	532	532	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2015	AF	266	266	0																									0					
1	2015	NAVY ^(*)	102	102	0																									0					
1	2015	FMS ^(*)	102	102	0																									0					
1	2015	Total	470	470	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2016	AF	450	225	225	38	37	38	37	38	37																			0					
1	2016	FMS ^(*)	64	48	16	6	5	5	-	-	-																			0					
1	2016	ARMY ^(*)	7	3	4	1	-	1	-	1	1																			0					
1	2016	NAVY ^(*)	165	82	83	14	14	13	14	14	14																			0					
1	2016	Total	686	358	328	59	56	57	51	53	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0					
1	2017	AF	160	0	160	-	-	-	-	-	-	10	10	10	10	10	10	10	14	15	26	15	20							0					
1	2017	FMS ^(*)	120	0	120	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10							0					
1	2017	NAVY ^(*)	65	0	65	-	-	-	-	-	-	5	10	10	8	4	4	4	4	4	4	4	4							0					
1	2017	Total	345	0	345	-	-	-	-	-	-	25	30	30	28	24	24	24	28	29	40	29	34	-	-	-	-	-	-	0					
1	2018	AF	171	0	171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14	14	14	14	14	87					
1	2018	FMS ^(*)	230	0	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	19	19	19	19	19	115					
1	2018	ARMY ^(*)	125	0	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	10	10	10	10	11	63					
1	2018	NAVY ^(*)	133	0	133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11	11	11	11	11	67					
1	2018	Total	659	0	659	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	54	54	54	54	54	55	332					
1	2019	AF	176	0	176							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176					
1	2019	ARMY ^(*)	286	0	286							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	286					
												O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 Plus																																	
	3	2017	AF	50	0	50	-	-	-	-	-	-	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	2	2	1							0	
	3	2017	Total	100	0	100	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	4	4	2	-	-	-	-	-	-	0		
	3	2018	AF	75	0	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	6	6	7	6	6	37		
	3	2018	FMS (+)	74	0	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	7	37		
	3	2018	NAVY (+)	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	6		
	3	2018	Total	161	0	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	13	13	14	13	14	80		
	3	2019	AF	80	0	80							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80		
	3	2019	FMS (+)	50	0	50							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50		
	3	2019	NAVY (+)	8	0	8							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8		
	3	2019	Total	138	0	138							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	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	P	A	U	U	U	U	P	
							T	V	C	N	B	R	P	Y	N	L	G	P	T	V	C	N	B	R	P	R	Y	N	L	G	P		

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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: 142																															
1	2013	AF ⁽¹⁾	92	92	0																								0		
1	2013	NAVY ⁽⁺⁾⁽²⁾	92	92	0																								0		
1	2013	FMS ⁽⁺⁾⁽³⁾	170	170	0																								0		
1	2013	Total	354	354	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2014	AF ⁽⁴⁾	170	170	0																								0		
1	2014	NAVY ⁽⁺⁾⁽⁵⁾	167	167	0																								0		
1	2014	FMS ⁽⁺⁾⁽⁶⁾	195	195	0																								0		
1	2014	Total	532	532	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2015	AF	266	266	0																								0		
1	2015	NAVY ⁽⁺⁾	102	102	0																								0		
1	2015	FMS ⁽⁺⁾	102	102	0																								0		
1	2015	Total	470	470	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2016	AF	450	450	0																								0		
1	2016	FMS ⁽⁺⁾	64	64	0																								0		
1	2016	ARMY ⁽⁺⁾	7	7	0																								0		
1	2016	NAVY ⁽⁺⁾	165	165	0																								0		
1	2016	Total	686	686	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2017	AF	160	160	0																								0		
1	2017	FMS ⁽⁺⁾	120	120	0																								0		
1	2017	NAVY ⁽⁺⁾	65	65	0																								0		
1	2017	Total	345	345	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2018	AF	171	84	87	14	14	14	15	15	15																		0		
1	2018	FMS ⁽⁺⁾	230	115	115	20	19	19	19	19	19																		0		
1	2018	ARMY ⁽⁺⁾	125	62	63	11	10	11	11	10	10																		0		
1	2018	NAVY ⁽⁺⁾	133	66	67	11	12	11	11	11	11																		0		
1	2018	Total	659	327	332	56	55	55	56	55	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2019	AF	176	0	176	-	-	-	-	-	-	15	15	14	15	15	14	15	15	14	15	15	14						0		
1	2019	ARMY ⁽⁺⁾	286	0	286	-	-	-	-	-	-	23	23	23	25	24	24	24	24	24	23	23	26						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 2019 Air Force **Date:** February 2018

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 <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 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	38	37	7	6	6	6	6	6																0			
3		2018	FMS (+)	74	37	37	6	6	6	6	6	7																0			
3		2018	NAVY (+)	12	6	6	1	1	1	1	1	1																0			
3		2018	Total	161	81	80	14	13	13	13	13	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
3		2019	AF	80	0	80	-	-	-	-	-	-	6	7	7	6	7	7	6	7	7	6	7	7				0			
3		2019	FMS (+)	50	0	50	-	-	-	-	-	-	5	4	4	4	4	4	5	4	4	4	4	4				0			
3		2019	NAVY (+)	8	0	8	-	-	-	-	-	-	1	-	1	-	1	1	1	1	1	1	-	-				0			
3		2019	Total	138	0	138	-	-	-	-	-	-	12	11	12	10	12	12	12	12	12	11	11	11	-	-	-	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 2019 Air Force **Date:** February 2018

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 2019	1-8-5 For 2019	MAX For 2019	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	5	26	31
2	Raytheon Missile Systems - Tucson, AZ	300	600	1,400	0	0	0	0	0	0	5	26	31
3	Raytheon Missile Systems - Tucson, AZ	300	600	1,400	0	0	0	0	0	0	5	26	31

Remarks:
 Due to system limitations, the Annual Production Rates do not accurately reflect the programs limitations. The Minimum Sustainment Rate is 300 missiles of any mix required of All Up Rounds (Item 1), Captive Air Training Missiles (Item 2), Missile Container (Item 3) and All Up Round Block II Plus (Item 4). The ECON rate is 600 missiles of any mix required, and the MAX production rate is 1,400 missiles of any mix required.

The MSR is for the combination of CATM, AUR Block II and AUR Block II+. Each individual item does not have an MSR. The MSR needs to be met by the overall program and not just per service. The MSR is shared by the USAF, USN, Army and FMS.

Annual Production Rate limitations are based on 4 missiles per 1 container ratio.

(‡) 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 2016 loaded in the month of first delivery.
- (2) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (3) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (4) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (5) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (6) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (7) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (8) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (9) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (10) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (11) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.
- (12) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	9,527	256	205	220	2	222	275	388	369	367	1,242	12,851
Gross/Weapon System Cost (<i>\$ in Millions</i>)	9,054.111	325.944	304.327	337.886	2.600	340.486	392.150	464.324	421.970	425.182	1,438.560	13,167.054
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	9,054.111	325.944	304.327	337.886	2.600	340.486	392.150	464.324	421.970	425.182	1,438.560	13,167.054
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	9,054.111	325.944	304.327	337.886	2.600	340.486	392.150	464.324	421.970	425.182	1,438.560	13,167.054
<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>)	82.943	1.793	2.067	2.023	-	2.023	2.060	2.094	2.136	2.175	6.789	104.080
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.950	1.273	1.485	1.536	1.300	1.534	1.426	1.197	1.144	1.159	1.158	1.025

Description:

The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the premier all-weather, all-environment radar guided missile developed jointly by the Air Force and Navy. The Air Force 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 also used to address Diminishing Manufacturing Sources (DMS) issues.

FY19: Due to parts limitations with Processor Replacement Program (PRP) missile configuration and a delay in the Form, Fit, Function Refresh (F3R) effort, the program office has adjusted FY19 production quantities to ensure a smooth production cut-in of F3R design. There is a delta between USAF and USN All Up Round Unit Cost based on the different ratios of each missile type for each service.

Funding for this exhibit is contained in PE 0207163F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		9,527 / 9,054.111	256 / 325.944	205 / 304.327	220 / 337.886	2 / 2.600	222 / 340.486
P-40	Total Gross/Weapon System Cost				9,527 / 9,054.111	256 / 325.944	205 / 304.327	220 / 337.886	2 / 2.600	222 / 340.486

*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:
 FY19 continues procurement and support of AMRAAM for the Air Force and Navy in Lot 33. USAF funds will procure 220 AIM-120D missiles. Also, will modify existing and build additional tooling and test equipment to support production of the AIM-120D. Continue to update the AMRAAM Technical Data Package to ensure a viable, producible design through the expected production life of the AMRAAM program. Maintain a robust supplier base capable of sustaining AMRAAM production for the life of the program, while continuing to develop second source suppliers for critical items. 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. Continue to procure Telemetry (TM) Instrumentation Units for Weapon System Evaluation Program (WSEP).

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 2019 Air Force		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	9,527	256	205	220	2	222
Gross/Weapon System Cost (\$ in Millions)	9,054.111	325.944	304.327	337.886	2.600	340.486
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	9,054.111	325.944	304.327	337.886	2.600	340.486
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	9,054.111	325.944	304.327	337.886	2.600	340.486

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

Initial Spares (\$ in Millions)	82.943	1.793	2.067	2.023	0.000	2.023
Gross/Weapon System Unit Cost (\$ in Millions)	0.950	1.273	1.485	1.536	1.300	1.534

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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) ^(†)	1.041	1,342	1,397.212	1.000	256	256.105	1.067	205	218.733	1.200	220	263.998	1.300	2	2.600	1.201	222	266.598
AIM-120 Missile Captive Air Training Missile (CATM) ^(†)	0.635	444	281.823	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Warranty	-	-	70.328	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Diminishing Manufacturing Sources/Material Shortages (DMS/MS)	-	-	370.607	-	-	42.141	-	-	30.770	-	-	29.145	-	-	-	-	-	29.145
Tooling and Test Equipment	-	-	81.238	-	-	0.000	-	-	17.333	-	-	6.479	-	-	-	-	-	6.479
Engineering Change Orders	-	-	2.755	-	-	0.000	-	-	1.469	-	-	1.498	-	-	-	-	-	1.498
Total Prior Years Costs	0.846	7,741	6,545.559	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	8,749.522	-	-	298.246	-	-	268.305	-	-	301.120	-	-	2.600	-	-	303.720
Subtotal: Hardware - Hardware End Item Cost	-	-	8,749.522	-	-	298.246	-	-	268.305	-	-	301.120	-	-	2.600	-	-	303.720
Ancillary Equipment - AncillaryEquipment End Item Cost																		
Recurring Cost																		
Containers and Cables	-	-	6.622	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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>	-	-	6.622	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250
<i>Subtotal: Ancillary Equipment - Ancillary Equipment End Item Cost</i>	-	-	6.622	-	-	1.250	-	-	1.250	-	-	1.250	-	-	-	-	-	1.250
Support - Support End Item Cost																		
Production Test/Support	-	-	111.866	-	-	4.180	-	-	6.635	-	-	6.837	-	-	-	-	-	6.837
PMA Other Government Costs	-	-	10.703	-	-	1.425	-	-	1.439	-	-	1.447	-	-	-	-	-	1.447
PMA Contractor Services	-	-	15.616	-	-	2.425	-	-	2.473	-	-	2.522	-	-	-	-	-	2.522
Training Equipment	-	-	159.782	-	-	18.418	-	-	24.225	-	-	24.710	-	-	-	-	-	24.710
<i>Subtotal: Support - Support End Item Cost</i>	-	-	297.967	-	-	26.448	-	-	34.772	-	-	35.516	-	-	-	-	-	35.516
Gross/Weapon System Cost	0.950	9,527	9,054.111	1.273	256	325.944	1.485	205	304.327	1.536	220	337.886	1.300	2	2.600	1.534	222	340.486

Remarks:

- 1) 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 TM units to support WSEP and modification of TM components to maintain compatibility with F-22, F-35 and test range infrastructure.

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

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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) ^(†)		2014	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Dec 2014	Oct 2016	261	0.990	Y		Jul 2013
AIM-120 Missile All Up Round (AUR) ^(†)		2015	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2015	Apr 2017	223	0.982	Y		Jul 2013
AIM-120 Missile All Up Round (AUR) ^(†)		2016	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2016	Apr 2018	281	0.940	Y		Jul 2013
AIM-120 Missile All Up Round (AUR) ^(†)		2017	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Nov 2017	Nov 2019	256	1.000	Y		Mar 2016
AIM-120 Missile All Up Round (AUR) ^(†)		2018	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Jul 2018	Aug 2020	205	1.067	Y		Mar 2017
AIM-120 Missile All Up Round (AUR) ^(†)		2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2019	Apr 2021	220	1.200	Y		Mar 2018
AIM-120 Missile All Up Round (AUR) ^(†)	✓	2019	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB	Mar 2019	Apr 2021	2	1.300	Y		Mar 2018
AIM-120 Missile Captive Air Training Missile (CATM) ^(†)		2014	Raytheon Missile Systems / Tucson, AZ	SS / FPIF	Eglin AFB ⁽¹⁾	Dec 2014	Jun 2016	18	0.465	Y		Jul 2013

^(†) indicates the presence of a P-21

Remarks:

1) Unit Cost calculations for Air Force, Navy, and other requirements.

Footnotes:

⁽¹⁾ FY14 is the last planned year of AF CATM procurement.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 2015													Fiscal Year 2016													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
AIM-120 Missile All Up Round (AUR)																																	
Prior Years Deliveries: 577																																	
	1	2014	AF	261	0	261				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261				
	1	2014	FMS ^(†) (2)	300	0	300				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300					
	1	2014	NAVY ^(†)	7	0	7				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7					
	1	2014	Total	568	0	568				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	568					
	1	2015	AF	223	0	223									A -	-	-	-	-	-	-	-	-	-	-	-	-	223					
	1	2015	FMS ^(†)	334	0	334									A -	-	-	-	-	-	-	-	-	-	-	-	-	334					
	1	2015	Total	557	0	557									-	-	-	-	-	-	-	-	-	-	-	-	-	557					
	1	2016	AF	281	0	281																				A -	-	281					
	1	2016	FMS ^(†)	212	0	212																				A -	-	212					
	1	2016	NAVY ^(†)	117	0	117																				A -	-	117					
	1	2016	Total	610	0	610																				-	-	610					
	1	2017	AF	256	0	256																						256					
	1	2017	FMS ^(†)	316	0	316																						316					
	1	2017	NAVY ^(†)	163	0	163																						163					
	1	2017	Total	735	0	735																						735					
	1	2018	AF	205	0	205																						205					
	1	2018	FMS ^(†)	245	0	245																						245					
	1	2018	NAVY ^(†)	120	0	120																						120					
	1	2018	Total	570	0	570																						570					
	1	2019	AF	220	0	220																						220					
	1	2019	FMS ^(†)	210	0	210																						210					
	1	2019	NAVY ^(†)	140	0	140																						140					
	1	2019	Total Base	570	0	570																						570					
✓	1	2019	AF	2	0	2																						2					
AIM-120 Missile Captive Air Training Missile (CATM)																																	
Prior Years Deliveries: 426																																	
	2	2014	AF ⁽³⁾	18	0	18				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	10		
	2	2014	NAVY ^(†) (4)	54	0	54				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	38	
										O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2017													Fiscal Year 2018													BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P		
AIM-120 Missile All Up Round (AUR)																																	
Prior Years Deliveries: 577																																	
	1	2014	AF	261	0	261	65	-	-	65	-	-	65	-	-	66														0			
	1	2014	FMS ^{(†)(2)}	300	0	300	142	-	-	80	-	-	78	-	-	-													0				
	1	2014	NAVY ^(†)	7	0	7	-	-	-	-	-	-	7	-	-	-													0				
	1	2014	Total	568	0	568	207	-	-	145	-	-	150	-	-	66	-	-	-	-	-	-	-	-	-	-	-	-	0				
	1	2015	AF	223	0	223	-	-	-	-	-	-	55	-	-	56	-	-	56	-	-	56							0				
	1	2015	FMS ^(†)	334	0	334	-	-	-	-	-	-	84	-	-	84	-	-	83	-	-	83							0				
	1	2015	Total	557	0	557	-	-	-	-	-	-	139	-	-	140	-	-	139	-	-	139	-	-	-	-	-	-	0				
	1	2016	AF	281	0	281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	72	-	-	137		
	1	2016	FMS ^(†)	212	0	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	52	-	-	108		
	1	2016	NAVY ^(†)	117	0	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	77			
	1	2016	Total	610	0	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124	-	-	164	-	-	322
	1	2017	AF	256	0	256																									256		
	1	2017	FMS ^(†)	316	0	316																										316	
	1	2017	NAVY ^(†)	163	0	163																										163	
	1	2017	Total	735	0	735																											735
	1	2018	AF	205	0	205																										205	
	1	2018	FMS ^(†)	245	0	245																											245
	1	2018	NAVY ^(†)	120	0	120																											120
	1	2018	Total	570	0	570																											570
	1	2019	AF	220	0	220																											220
	1	2019	FMS ^(†)	210	0	210																											210
	1	2019	NAVY ^(†)	140	0	140																											140
	1	2019	Total Base	570	0	570																											570
✓	1	2019	AF	2	0	2																											2
AIM-120 Missile Captive Air Training Missile (CATM)																																	
Prior Years Deliveries: 426																																	
	2	2014	AF ⁽³⁾	18	8	10	8	-	-	2																						0	
	2	2014	NAVY ^{(†)(4)}	54	16	38	16	-	-	22																						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 2019 Air Force **Date:** February 2018

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 2017														Fiscal Year 2018														BALANCE
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
	2	2014	Total	72	24	48	24	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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 2019 Air Force **Date:** February 2018

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 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					
AIM-120 Missile All Up Round (AUR)																																			
Prior Years Deliveries: 577																																			
	1	2014	AF	261	261	0																											0		
	1	2014	FMS (+)(2)	300	300	0																											0		
	1	2014	NAVY (+)	7	7	0																											0		
	1	2014	Total	568	568	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
	1	2015	AF	223	223	0																											0		
	1	2015	FMS (+)	334	334	0																											0		
	1	2015	Total	557	557	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
	1	2016	AF	281	144	137	65	-	-	72																							0		
	1	2016	FMS (+)	212	104	108	61	-	-	47																							0		
	1	2016	NAVY (+)	117	40	77	40	-	-	37																							0		
	1	2016	Total	610	288	322	166	-	-	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
	1	2017	AF	256	0	256	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	64	-	-	64	-	-	64	-	-	0			
	1	2017	FMS (+)	316	0	316	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-	79	-	-	79	-	-	79	-	-	0				
	1	2017	NAVY (+)	163	0	163	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	41	-	-	41	-	-	41	-	-	0				
	1	2017	Total	735	0	735	-	-	-	-	-	-	-	-	-	-	-	-	184	-	-	184	-	-	184	-	-	184	-	-	183	-	0		
	1	2018	AF	205	0	205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	154			
	1	2018	FMS (+)	245	0	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	-	184				
	1	2018	NAVY (+)	120	0	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	90				
	1	2018	Total	570	0	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	142	-	428					
	1	2019	AF	220	0	220																										220			
	1	2019	FMS (+)	210	0	210																										210			
	1	2019	NAVY (+)	140	0	140																										140			
	1	2019	Total Base	570	0	570																										570			
✓	1	2019	AF	2	0	2																										2			
AIM-120 Missile Captive Air Training Missile (CATM)																																			
Prior Years Deliveries: 426																																			
	2	2014	AF (3)	18	18	0																										0			
	2	2014	NAVY (+)(4)	54	54	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 2019 Air Force **Date:** February 2018

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 2019													Fiscal Year 2020													BALANCE					
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
	2	2014	Total	72	72	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 2019 Air Force **Date:** February 2018

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 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
AIM-120 Missile All Up Round (AUR)																															
Prior Years Deliveries: 577																															
	1	2014	AF	261	261	0																							0		
	1	2014	FMS (+)(2)	300	300	0																							0		
	1	2014	NAVY (+)	7	7	0																							0		
	1	2014	Total	568	568	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2015	AF	223	223	0																							0		
	1	2015	FMS (+)	334	334	0																							0		
	1	2015	Total	557	557	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2016	AF	281	281	0																							0		
	1	2016	FMS (+)	212	212	0																							0		
	1	2016	NAVY (+)	117	117	0																							0		
	1	2016	Total	610	610	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2017	AF	256	256	0																							0		
	1	2017	FMS (+)	316	316	0																							0		
	1	2017	NAVY (+)	163	163	0																							0		
	1	2017	Total	735	735	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2018	AF	205	51	154	-	51	-	-	51	-	-	52															0		
	1	2018	FMS (+)	245	61	184	-	61	-	-	61	-	-	62															0		
	1	2018	NAVY (+)	120	30	90	-	30	-	-	30	-	-	30															0		
	1	2018	Total	570	142	428	-	142	-	-	142	-	-	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2019	AF	220	0	220	-	-	-	-	-	55	-	-	55	-	-	55	-	-	55								0		
	1	2019	FMS (+)	210	0	210	-	-	-	-	-	52	-	-	52	-	-	53	-	-	53								0		
	1	2019	NAVY (+)	140	0	140	-	-	-	-	-	35	-	-	35	-	-	35	-	-	35								0		
	1	2019	Total Base	570	0	570	-	-	-	-	-	142	-	-	142	-	-	143	-	-	143	-	-	-	-	-	-	-	0		
✓	1	2019	AF	2	0	2	-	-	-	-	-	2																	0		
AIM-120 Missile Captive Air Training Missile (CATM)																															
Prior Years Deliveries: 426																															
	2	2014	AF (+)(3)	18	18	0																							0		
	2	2014	NAVY (+)(4)	54	54	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 2019 Air Force **Date:** February 2018

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 2019	1-8-5 For 2019	MAX For 2019	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 ⁽⁵⁾	400	960	0	6	25	31	0	0	0	0
2	Raytheon Missile Systems - Tucson, AZ	400	400	960	0	15	18	33	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:

(2) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.

(3) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.

(4) Prior Year contracts with undelivered assets have all deliveries occurring before Oct 2016 loaded in the month of first delivery.

(5) MSR for 2019: 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 2019: Factory capacity enables production up to 960 missiles. FY19 production capacity is constrained to 571 missiles due to ramp rate of Form, Fit, Function Refresh (F3R) and parts limitation. This assumes at least 210 FMS missiles.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	2,219	3,629	1,338	3,000	4,338	1,398	896	875	891	-	14,246
Gross/Weapon System Cost (<i>\$ in Millions</i>)	642.760	175.330	329.347	113.765	255.000	368.765	118.860	76.193	74.455	75.817	-	1,861.527
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	642.760	175.330	329.347	113.765	255.000	368.765	118.860	76.193	74.455	75.817	-	1,861.527
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	642.760	175.330	329.347	113.765	255.000	368.765	118.860	76.193	74.455	75.817	-	1,861.527

(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>)	-	0.070	0.080	0.075	0.075	0.075	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	0.079	0.091	0.085	0.085	0.085	0.085	0.085	0.085	0.085	-	0.131

Description:

FY2017 funding totals include \$141.375M appropriated for Overseas Contingency Operations.
 FY2018 funding totals include \$294.480M 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-1 Predator and 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. Funds may be used to address Diminishing Manufacturing Sources (DMS) issues. Unit cost may vary depending on lead Service, other Services and/or FMS procurement quantities. Prior to FY2008, Hellfire missiles were procured under the Predator PE 0305219F.

Funding for this exhibit 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.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		- / 642.760	2,219 / 175.330	3,629 / 329.347	1,338 / 113.765	3,000 / 255.000	4,338 / 368.765
P-40	Total Gross/Weapon System Cost				- / 642.760	2,219 / 175.330	3,629 / 329.347	1,338 / 113.765	3,000 / 255.000	4,338 / 368.765

*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:
 FY19 Missile procures AGM-114 Hellfire missiles, Telemetry Measurement (TM) kits, load training missiles, existing warhead improvements, height of burst kits and production implementation for the Height of Burst capability for R-model variants which incorporates a multi-purpose warhead, variable delay fuze and increased lethality. Multiple variants (R-2, R9E etc.) of the Hellfire missile may be procured based upon operational requirements for various warheads and the enhanced weapon engagement zone. Quantities are based on current estimated prices for purchase through the Army. The Hellfire missiles are used for test, training and operations.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
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:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	2,219	3,629	1,338	3,000	4,338
Gross/Weapon System Cost (\$ in Millions)	642.760	175.330	329.347	113.765	255.000	368.765
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	642.760	175.330	329.347	113.765	255.000	368.765
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	642.760	175.330	329.347	113.765	255.000	368.765

(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)	-	0.079	0.091	0.085	0.085	0.085

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 ^(†)	0.075	8,570	642.760	0.070	2,219	154.697	0.080	3,629	290.527	0.075	1,338	100.350	0.075	3,000	224.400	0.075	4,338	324.750
<i>Subtotal: Recurring Cost</i>	-	-	642.760	-	-	154.697	-	-	290.527	-	-	100.350	-	-	224.400	-	-	324.750
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	642.760	-	-	154.697	-	-	290.527	-	-	100.350	-	-	224.400	-	-	324.750
Hardware - Hardware End Item Cost																		
Recurring Cost																		
Test Equipment	-	-	-	-	-	1.050	-	-	2.550	-	-	0.895	-	-	2.550	-	-	3.445
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.050	-	-	2.550	-	-	0.895	-	-	2.550	-	-	3.445
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	1.050	-	-	2.550	-	-	0.895	-	-	2.550	-	-	3.445
Support - Support End Item Cost																		
Program Management Administration	-	-	-	-	-	10.682	-	-	19.780	-	-	6.830	-	-	15.300	-	-	22.130
Production Engineering Support	-	-	-	-	-	8.901	-	-	16.490	-	-	5.690	-	-	12.750	-	-	18.440
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	19.583	-	-	36.270	-	-	12.520	-	-	28.050	-	-	40.570
Gross/Weapon System Cost	-	-	642.760	0.079	2,219	175.330	0.091	3,629	329.347	0.085	1,338	113.765	0.085	3,000	255.000	0.085	4,338	368.765

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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 ^(†)		2015	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Sep 2015	Sep 2017	2,857	0.079	Y		Dec 2013
AGM-114 - All-up-Rounds ^(†)		2016	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Feb 2017	Feb 2019	5,713	0.073	Y		Dec 2013
AGM-114 - All-up-Rounds ^(†)		2017	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Sep 2017	Sep 2019	2,219	0.070	Y		Dec 2013
AGM-114 - All-up-Rounds ^(†)		2018	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Sep 2018	Sep 2020	3,629	0.080	Y		Dec 2016
AGM-114 - All-up-Rounds ^(†)		2019	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Sep 2019	Sep 2021	1,338	0.075	Y		Dec 2016
AGM-114 - All-up-Rounds ^(†)	✓	2019	HELLFIRE Sys Limited Liability / Orlando FL / Troy AL	MIPR	Redstone Arsenal, AL	Sep 2019	Sep 2021	3,000	0.075	Y		Dec 2016

^(†) indicates the presence of a P-21

Remarks:
FY15 and FY16 represent remaining undelivered quantities.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 2015												Fiscal Year 2016												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
AGM-114 - All-up-Rounds																															
	1	2015	AF	2,857	0	2,857																								2,857	
	1	2016	AF	5,713	0	5,713																								5,713	
	1	2016	FMS (+)	1,332	0	1,332																								1,332	
	1	2016	ARMY (+)	383	0	383																								383	
	1	2016	Total	7,428	0	7,428																								7,428	
	1	2017	AF	2,219	0	2,219																								2,219	
	1	2017	ARMY (+)	4,362	0	4,362																								4,362	
	1	2017	Total	6,581	0	6,581																								6,581	
	1	2018	AF	3,629	0	3,629																								3,629	
	1	2018	ARMY (+)	3,925	0	3,925																								3,925	
	1	2018	Total	7,554	0	7,554																								7,554	
	1	2019	AF	1,338	0	1,338																								1,338	
	1	2019	ARMY (+)	2,631	0	2,631																								2,631	
	1	2019	Total Base	3,969	0	3,969																								3,969	
✓	1	2019	AF	3,000	0	3,000																								3,000	
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2017													Fiscal Year 2018													B A L A N C E		
O C C #	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			
AGM-114 - All-up-Rounds																																	
1		2015	AF	2,857	0	2,857	-	-	-	-	-	-	-	-	-	-	-	60	260	168	238	173	439	300	645	550	-	-	24	0			
1		2016	AF	5,713	0	5,713																								5,713			
1		2016	FMS (+)	1,332	0	1,332																								1,332			
1		2016	ARMY (+)	383	0	383																								383			
1		2016	Total	7,428	0	7,428																								7,428			
1		2017	AF	2,219	0	2,219																								2,219			
1		2017	ARMY (+)	4,362	0	4,362																								4,362			
1		2017	Total	6,581	0	6,581																								6,581			
1		2018	AF	3,629	0	3,629																								A - 3,629			
1		2018	ARMY (+)	3,925	0	3,925																								A - 3,925			
1		2018	Total	7,554	0	7,554																								- 7,554			
1		2019	AF	1,338	0	1,338																								1,338			
1		2019	ARMY (+)	2,631	0	2,631																								2,631			
1		2019	Total Base	3,969	0	3,969																								3,969			
✓	1	2019	AF	3,000	0	3,000																								3,000			

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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

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			
AGM-114 - All-up-Rounds																																	
1		2015	AF	2,857	2,857	0																							0				
1		2016	AF	5,713	0	5,713	-	-	-	-	487	608	608	908	96	1,008	608	608	666	116	-	-	-	-	-	-	-	-	0				
1		2016	FMS (+)	1,332	0	1,332	-	-	-	-	-	111	111	111	111	111	111	-	-	-	-	-	-	-	-	-	-	-	555				
1		2016	ARMY (+)	383	0	383	-	-	-	-	-	33	33	33	33	33	32	31	31	31	31	31	31	-	-	-	-	-	0				
1		2016	Total	7,428	0	7,428	-	-	-	-	487	752	752	1,052	240	1,152	751	750	697	147	31	31	31	-	-	-	-	-	555				
1		2017	AF	2,219	0	2,219	-	-	-	-	-	-	-	-	-	-	-	184	185	185	185	185	185	185	185	185	185	-	0				
1		2017	ARMY (+)	4,362	0	4,362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,362				
1		2017	Total	6,581	0	6,581	-	-	-	-	-	-	-	-	-	-	-	184	185	185	185	185	185	185	185	185	185	-	4,362				
1		2018	AF	3,629	0	3,629	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	302	3,327				
1		2018	ARMY (+)	3,925	0	3,925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,925				
1		2018	Total	7,554	0	7,554	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	302	7,252				
1		2019	AF	1,338	0	1,338												A	-	-	-	-	-	-	-	-	-	-	1,338				
1		2019	ARMY (+)	2,631	0	2,631												A	-	-	-	-	-	-	-	-	-	-	2,631				
1		2019	Total Base	3,969	0	3,969												-	-	-	-	-	-	-	-	-	-	-	3,969				
✓		2019	AF	3,000	0	3,000												A	-	-	-	-	-	-	-	-	-	-	3,000				

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T 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	2015	AF	2,857	2,857	0																							0		
	1	2016	AF	5,713	5,713	0	-	-	-	-	-																		0		
	1	2016	FMS (+)	1,332	777	555	111	111	111	111	111																		0		
	1	2016	ARMY (+)	383	383	0	-	-	-	-	-																		0		
	1	2016	Total	7,428	6,873	555	111	111	111	111	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2017	AF	2,219	2,219	0	-	-	-	-	-																		0		
	1	2017	ARMY (+)	4,362	0	4,362	364	364	364	364	364	364	363	363	363	363	363	363											0		
	1	2017	Total	6,581	2,219	4,362	364	364	364	364	364	363	363	363	363	363	363	363	-	-	-	-	-	-	-	-	-	-	0		
	1	2018	AF	3,629	302	3,327	302	302	302	302	302	303	303	303	303	303	-												0		
	1	2018	ARMY (+)	3,925	0	3,925	327	327	327	327	327	327	327	327	327	327	328												0		
	1	2018	Total	7,554	302	7,252	629	629	629	629	629	630	630	630	630	630	328	-	-	-	-	-	-	-	-	-	-	-	0		
	1	2019	AF	1,338	0	1,338	-	-	-	-	-	-	-	-	-	-	112	111	111	111	111	111	111	112	112	112	112	112	112	0	
	1	2019	ARMY (+)	2,631	0	2,631	-	-	-	-	-	-	-	-	-	-	-	220	220	220	220	220	220	220	220	220	217	217	217	0	
	1	2019	Total Base	3,969	0	3,969	-	-	-	-	-	-	-	-	-	-	112	331	331	331	331	331	331	332	332	332	329	329	217	0	
✓	1	2019	AF	3,000	0	3,000	-	-	-	-	-	-	-	-	-	-	250	250	250	250	250	250	250	250	250	250	250	250	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 2019 Air Force **Date:** February 2018

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 2019	1-8-5 For 2019	MAX For 2019	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	HELLFIRE Sys Limited Liability - Orlando FL / Troy AL	3,600	6,000	11,000	5	12	24	36	0	0	0	0

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 consists of the sum of USAF, USN, Army and approved FMS procurements for the year.

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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	16,237	4,507	7,312	2,917	3,909	6,826	3,823	1,264	2,497	2,497	-	44,963
Gross/Weapon System Cost (<i>\$ in Millions</i>)	909.120	251.361	356.950	105.034	140.724	245.758	137.630	45.536	89.893	89.919	0.000	2,126.167
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	909.120	251.361	356.950	105.034	140.724	245.758	137.630	45.536	89.893	89.919	0.000	2,126.167
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	909.120	251.361	356.950	105.034	140.724	245.758	137.630	45.536	89.893	89.919	0.000	2,126.167

(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>)	0.055	0.048	0.046	0.035	0.036	0.036	0.035	0.034	0.035	0.035	-	0.045
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.056	0.056	0.049	0.036	0.036	0.036	0.036	0.036	0.036	0.036	-	0.047

Description:

FY2017 funding totals include \$151.000M appropriated for Overseas Contingency Operations for SDB I.

FY2018 funding totals include \$183.160M appropriated for SDB I Base and \$90.920M appropriated for Overseas Contingency Operations for SDB I.

1. 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 the F-22A, F-16, F-35A, B-1, A-10, B-52, MQ-9, and AC-130J. SDB I completed IOT&E in Jun 2006 and commenced Full Rate Production (FRP) in Dec 2006. 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 used in these operations.

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

2. GBU-53/B: Small Diameter Bomb Increment II (SDB II) 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 provides the warfighter the capability to attack mobile targets from stand-off, through adverse weather. SDB II addresses the following warfighter requirements: attack moving and stationary targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures and provides a network enabled weapon capability via Link-16 and Ultra High Frequency (UHF) Weapon Data Link (WDL). 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, F/A-18 E/F, and AC-130. SDB II will be compatible with the BRU-61 (Bomb Rack Unit) miniature munitions carriage, the Type II carriage system, the CNU-660/E carriage system, the Common Munitions Built-in-Test Reprogramming Equipment (CMBRE), and Joint Mission Planning System (JMPS). The SDB II program will develop and field a single weapon storage container (USAF) and a dual weapon container (DoN).

2a. SDB II is an events-driven program. SDB II completed a 42-month competitive Risk Reduction phase in October 2009 and entered the Milestone B Engineering and Manufacturing Development (EMD) phase in August 2010. A Fixed Price Incentive Firm EMD contract was awarded on 09 August 2010. The SDB II Program received Milestone C approval to enter Low Rate Initial Production (LRIP) on 3 June 2015. A Fixed Price Incentive Firm Contract for Lot 1 production of 144 weapons was awarded on 12 June 2015, Lot 2 production contract option for 250 weapons was exercised on 8 September 2016, and Lot 3 production contract option for 312 weapons was exercised on 27 January 2017. An updated Milestone C Acquisition Program Baseline is complete. Developmental Testing (DT), including Guided Test Vehicles

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
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		
<p>(GTV) and Live Fire (LF) test missions is nearing completion. A 28-shot Government Confidence Test program began in FY2016 as part of DT. There are no significant software-related issues with the program at this time. Required Assets Available (RAA) for the F-15E is to be completed in FY2019. The DoN Initial Operational Capability (IOC) on the F-35B and F-35C will occur once all F-35B and F-35C operational testing is completed. SDB II is a key component of the Air Force Global Strike Task Force CONOPs. Department of the Navy first Lot (Lot 4) will support F/A-18E/F Initial Operational Capability.</p> <p>Funds may be used to resolve production DMS/MS/Obsolescence issues through studies, bridge buys, life of type buys, supplier/parts replacement and qualification activities to preserve future production capabilities and capacities.</p> <p>Note: ID Code A is applicable to SDB I only.</p> <p>Funding for this exhibit contained in PE 0207327F.</p> <p>Reference BP20 SDB002 for SDB II FY19 and out-years.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		16,237 / 909.120	4,507 / 251.361	7,312 / 356.950	2,917 / 105.034	3,909 / 140.724	6,826 / 245.758
P-40	Total Gross/Weapon System Cost				16,237 / 909.120	4,507 / 251.361	7,312 / 356.950	2,917 / 105.034	3,909 / 140.724	6,826 / 245.758

*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:
 FY2019 budget request includes funding for SDB I weapons. This funding will procure 6,826 weapons needed to replenish SDB I inventory levels.
 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.
 FY17 totals include amounts enacted in P.L. 114-254.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	16,237	4,507	7,312	2,917	3,909	6,826
Gross/Weapon System Cost (\$ in Millions)	909.120	251.361	356.950	105.034	140.724	245.758
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	909.120	251.361	356.950	105.034	140.724	245.758
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	909.120	251.361	356.950	105.034	140.724	245.758

(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)	0.056	0.056	0.049	0.036	0.036	0.036

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 ^(†)	0.200	394	78.979	0.203	312	63.324	0.132	460	60.789	-	-	-	-	-	-	-	-	-
Weapon Containers	-	-	1.603	-	-	1.306	-	-	1.009	-	-	-	-	-	-	-	-	-
Engineering Change Orders	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-
SDB Increment I ^(†)	0.051	15,843	808.000	0.036	4,195	151.000	0.040	6,852	274.080	0.035	2,917	102.610	0.036	3,909	140.724	0.036	6,826	243.334
<i>Subtotal: Recurring Cost</i>	-	-	<i>888.582</i>	-	-	<i>215.630</i>	-	-	<i>335.878</i>	-	-	<i>102.610</i>	-	-	<i>140.724</i>	-	-	<i>243.334</i>
<i>Subtotal: Flyaway - Flyaway End Item Cost</i>	-	-	<i>888.582</i>	-	-	<i>215.630</i>	-	-	<i>335.878</i>	-	-	<i>102.610</i>	-	-	<i>140.724</i>	-	-	<i>243.334</i>
Support - Support End Item Cost																		
Training Equipment	-	-	1.914	-	-	0.744	-	-	0.262	-	-	-	-	-	-	-	-	-
Operational Flight Program Updates & Test	-	-	2.515	-	-	15.935	-	-	2.020	-	-	-	-	-	-	-	-	-
Logistics Support	-	-	0.036	-	-	0.214	-	-	0.134	-	-	-	-	-	-	-	-	-
Production Testing	-	-	11.373	-	-	16.740	-	-	16.909	-	-	-	-	-	-	-	-	-
PMA Contractor Services	-	-	4.024	-	-	1.071	-	-	0.779	-	-	-	-	-	-	-	-	-
PMA Other Government Costs	-	-	0.676	-	-	1.027	-	-	0.968	-	-	1.800	-	-	-	-	-	1.800
Miscellaneous Contracts	-	-	-	-	-	-	-	-	-	-	-	0.624	-	-	-	-	-	0.624
<i>Subtotal: Support - Support End Item Cost</i>	-	-	<i>20.538</i>	-	-	<i>35.731</i>	-	-	<i>21.072</i>	-	-	<i>2.424</i>	-	-	-	-	-	<i>2.424</i>

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	0.056	16,237	909.120	0.056	4,507	251.361	0.049	7,312	356.950	0.036	2,917	105.034	0.036	3,909	140.724	0.036	6,826	245.758

Remarks:
SDB I FY2018 Base and OCO funding replenishes SDB I weapons.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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 (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDB Increment II All Up Round Weapon ^(†)		2015	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jun 2015	Jun 2017	144	0.273	Y		Oct 2009
SDB Increment II All Up Round Weapon ^(†)		2016	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Sep 2016	Nov 2017	250	0.180	Y		Oct 2009
SDB Increment II All Up Round Weapon ^(†)		2017	Raytheon / Tucson AZ	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Jan 2017	Sep 2018	312	0.203	Y		Oct 2009
SDB Increment II All Up Round Weapon ^(†)		2018	Raytheon / Tucson AZ	SS / FPEPA	AFLCMC/PK Eglin AFB, FL	Jan 2018	Sep 2019	460	0.132	Y		Oct 2009
SDB Increment I ^(†)		2015	Boeing / St Louis MO	SS / FFP	AFLCMC/PK Eglin AFB, FL	Aug 2015	May 2017	299	0.036	Y		Jan 2015
SDB Increment I ^(†)		2016	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Sep 2016	Aug 2017	3,244	0.040	Y		Jan 2016
SDB Increment I ^(†)		2017	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Dec 2017	Sep 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	6,852	0.040	Y		Jan 2018
SDB Increment I ^(†)		2019	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2019	Sep 2020	2,917	0.035	Y		Jan 2019
SDB Increment I ^(†)	✓	2019	Boeing / St Louis MO	SS / FPIF	AFLCMC/PK Eglin AFB, FL	Aug 2019	Sep 2020	3,909	0.036	Y		Jan 2019

^(†) indicates the presence of a P-21

Remarks:

1. ID Code A is applicable only to SDB I.
2. SDB I Prior Years procurement is 12,300.
3. FY16 funds were obligated on the Lot 12 Unfinalized Contract Action (UCA) in Sep 16. The Lot 12 Finalized Contract Action was awarded in Dec 17.
4. SDB II Lots 1-5 are options on the current EMD contract with Raytheon Missile System, Tucson, AZ, which were competitively awarded in August 2010. SDB II specifications for Lot 1-5 are defined in the EMD contract.
5. SDB II Lots 4-5 (FY2018-FY2019) are Fixed Price Not-To-Exceed pricing with an Economic Price Adjustment clause for labor and materials. These lots will be negotiated to firm fixed price prior to the end of the Lot 3 period of performance based on the certified cost or pricing data proposals.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												B A L A N C E	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 4	BAL D U E A S O F 1 O C T	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
SDB Increment II All Up Round Weapon																															
1		2015	AF	144	0	144																							144		
1		2016	AF	250	0	250																							250		
1		2017	AF	312	0	312																							312		
1		2018	AF	460	0	460																							460		
1		2018	NAVY (‡)	90	0	90																							90		
1		2018	Total	550	0	550																							550		
SDB Increment I																															
Prior Years Deliveries: 12300																															
2		2015	AF	299	0	299																						299			
2		2016	AF	3,244	0	3,244																							3,244		
2		2017	AF	4,195	0	4,195																							4,195		
2		2018	AF	6,852	0	6,852																							6,852		
2		2019	AF	2,917	0	2,917																							2,917		
✓ 2		2019	AF	3,909	0	3,909																							3,909		
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2017													Fiscal Year 2018													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
SDB Increment II All Up Round Weapon																																	
1		2015	AF	144	0	144	-	-	-	-	-	-	-	-	40	50	54												0				
1		2016	AF	250	0	250	-	-	-	-	-	-	-	-	-	-	-	18	18	19	21	22	22	21	22	22	21	22	22				
1		2017	AF	312	0	312				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	287				
1		2018	AF	460	0	460														A	-	-	-	-	-	-	-	-	460				
1		2018	NAVY (‡)	90	0	90														A	-	-	-	-	-	-	-	-	90				
1		2018	Total	550	0	550														-	-	-	-	-	-	-	-	-	550				
SDB Increment I																																	
Prior Years Deliveries: 12300																																	
2		2015	AF	299	0	299	-	-	-	-	-	-	-	150	149														0				
2		2016	AF	3,244	0	3,244	-	-	-	-	-	-	-	-	-	-	270	270	270	270	270	270	270	270	270	270	274		0				
2		2017	AF	4,195	0	4,195														A	-	-	-	-	-	-	-	-	3,845				
2		2018	AF	6,852	0	6,852																					A	-	6,852				
2		2019	AF	2,917	0	2,917																							2,917				
✓ 2		2019	AF	3,909	0	3,909																							3,909				
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 2019												Fiscal Year 2020												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
SDB Increment II All Up Round Weapon																															
1	2015	AF		144	144	0																						0			
1	2016	AF		250	228	22	22																					0			
1	2017	AF		312	25	287	25	25	25	25	25	25	25	25	29	29	29											0			
1	2018	AF		460	0	460	-	-	-	-	-	-	-	-	-	-	39	39	39	39	39	39	39	39	39	39	39	0			
1	2018	NAVY (±)		90	0	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	-	-	0			
1	2018	Total		550	0	550	-	-	-	-	-	-	-	-	-	-	39	39	39	39	39	39	39	39	39	129	39	31	0		
SDB Increment I																															
Prior Years Deliveries: 12300																															
2	2015	AF		299	299	0																						0			
2	2016	AF		3,244	3,244	0																						0			
2	2017	AF		4,195	350	3,845	350	350	350	350	350	350	350	350	350	345												0			
2	2018	AF		6,852	0	6,852	-	-	-	-	-	-	-	-	-	-	571	571	571	571	571	571	571	571	571	571	571	0			
2	2019	AF		2,917	0	2,917											A -	-	-	-	-	-	-	-	-	-	-	243	2,674		
✓ 2	2019	AF		3,909	0	3,909											A -	-	-	-	-	-	-	-	-	-	-	325	3,584		
							O C T	N O V	D E C	J A N	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 2019 Air Force **Date:** February 2018

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 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		2015	AF	144	144	0																						0			
1		2016	AF	250	250	0																						0			
1		2017	AF	312	312	0																						0			
1		2018	AF	460	460	0																						0			
1		2018	NAVY (‡)	90	90	0																						0			
1		2018	Total	550	550	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
SDB Increment I																															
Prior Years Deliveries: 12300																															
2		2015	AF	299	299	0																						0			
2		2016	AF	3,244	3,244	0																						0			
2		2017	AF	4,195	4,195	0																						0			
2		2018	AF	6,852	6,852	0																						0			
2		2019	AF	2,917	243	2,674	243	243	243	243	243	243	243	243	243	243	243	243	244									0			
✓ 2		2019	AF	3,909	325	3,584	325	325	325	325	325	325	325	325	325	325	325	325	334									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 2019 Air Force	Date: February 2018
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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 2019	1-8-5 For 2019	MAX For 2019	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	840	1,050	1,260	0	0	0	0	0	0	4	20	24
2	Boeing - St Louis MO	1,000	5,000	8,000	0	0	0	0	0	0	11	13	24

Remarks:
 SDB I - Contractor facilitization is projected to be complete by Dec 2018. SDB I maximum production quantity will increase from 5,000 to 8,000 weapons.
 SDB II - Yearly production may be below the Minimum Sustainment Rate (MSR) due to the MSR being applicable to Lot 4 and out and the programs first three LRIP quantity buys maybe below MSR.

(‡) 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 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	510	-	510	1,175	2,160	1,968	2,082	2,876	10,771
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	0.000	100.861	0.000	100.861	212.434	333.546	308.116	321.972	489.974	1,766.903
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	0.000	100.861	0.000	100.861	212.434	333.546	308.116	321.972	489.974	1,766.903
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	0.000	100.861	0.000	100.861	212.434	333.546	308.116	321.972	489.974	1,766.903

(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>)	-	-	-	0.124	-	0.124	0.161	0.140	0.148	0.143	0.157	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	0.198	-	0.198	0.181	0.154	0.157	0.155	0.170	0.164

Description:

1. GBU-53/B: Small Diameter Bomb Increment II (SDB II) 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 provides the warfighter the capability to attack mobile targets from stand-off, through adverse weather. SDB II addresses the following warfighter requirements: attack moving and stationary targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures and provides a network enabled weapon capability via Link-16 and Ultra High Frequency (UHF) Weapon Data Link (WDL). 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, F/A-18 E/F, and AC-130. SDB II will be compatible with the BRU-61 (Bomb Rack Unit) miniature munitions carriage, the Joint Miniature Munitions (JMM) BRU, the CNU-660/E carriage system, the Common Munitions Built-in-Test Reprogramming Equipment (CMBRE), and Joint Mission Planning System (JMPS). The SDB II program will develop and field a single weapon storage container (USAF) and a dual weapon container (DoN).

1a. SDB II is an events-driven program. SDB II completed a 42-month competitive Risk Reduction phase in October 2009 and entered the Milestone B Engineering and Manufacturing Development (EMD) phase in August 2010. A Fixed Price Incentive Firm EMD contract was awarded on 09 August 2010. The SDB II Program received Milestone C approval to enter Low Rate Initial Production (LRIP) on 3 June 2015. A Fixed Price Incentive Firm Contract for Lot 1 production of 144 weapons was awarded on 12 June 2015, Lot 2 production contract option for 250 weapons was exercised on 8 September 2016, and Lot 3 production contract option for 312 weapons was exercised on 27 January 2017. An updated Milestone C Acquisition Program Baseline is complete. Developmental Testing (DT), including Guided Test Vehicles (GTV) and Live Fire (LF) test missions is nearing completion. A 28-shot Government Confidence Test program began in FY2016 as part of DT. There are no significant software-related issues with the program at this time. Required Assets Available (RAA) for the F-15E is to be completed in FY2019. The DoN Initial Operational Capability (IOC) on the F-35B and F-35C will occur once all F-35B and F-35C operational testing is completed. SDB II is a key component of the Air Force Global Strike Task Force CONOPs. Department of the Navy first Lot (Lot 4) will support F/A-18E/F Initial Operational Capability.

1b. The total planned SDB II procurement is 17,000 weapons; 12,000 for the AF and 5,000 for the DoN. SDB II total procurement costs in this document only include the 10,771 AF weapons, weapon containers, trainers, reliability captive/test vehicles, tactical to guided test vehicles conversion for WSEP, and associated production support.

Funds may be used to resolve production DMS/MS/Obsolescence issues through studies, bridge buys, life of type buys, supplier/parts replacement and qualification activities to preserve future production capabilities and capacities.

Funding for this exhibit contained in PE 0207327F.

Reference BP20 SDB000 for SDB II FY18 and prior years.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		- / -	- / 0.000	- / 0.000	510 / 100.861	- / 0.000	510 / 100.861
P-40	Total Gross/Weapon System Cost				- / -	- / 0.000	- / 0.000	510 / 100.861	- / 0.000	510 / 100.861

*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 FY2019 budget request includes funding for SDB II weapons, containers, training equipment required for weapon handling and maintenance, software maintenance, and test assets and support for reliability testing. Training equipment includes Weapon Load Crew Trainers, Conventional Maintenance Munitions Trainers, Tactical Weapon Conversion to Government Test Vehicles. FY2019 funding supports the Lot 5 option which includes a contract option range between 840 and 1260 SDB II weapons. The EMD contract contains options for Production Lots 1-5, and is inclusive of both USAF and DoN production quantities. Quantities listed in exhibits are USAF only.

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 2019 Air Force		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	510	-	510
Gross/Weapon System Cost (\$ in Millions)	-	0.000	0.000	100.861	0.000	100.861
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.000	0.000	100.861	0.000	100.861
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.000	0.000	100.861	0.000	100.861

(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)	-	-	-	0.198	-	0.198

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 ^(†)	-	-	-	-	-	0.000	-	-	0.000	0.121	510	61.752	-	-	0.000	0.121	510	61.752
Weapon Containers	-	-	-	-	-	-	-	-	-	-	-	1.428	-	-	-	-	-	1.428
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>63.180</i>	-	-	<i>0.000</i>	-	-	<i>63.180</i>
<i>Subtotal: Flyaway - Small Diameter Bomb II Cost</i>	-	-	-	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>63.180</i>	-	-	<i>0.000</i>	-	-	<i>63.180</i>
Support - Small Diameter Bomb II Cost																		
Training Equipment	-	-	-	-	-	-	-	-	-	-	-	0.095	-	-	-	-	-	0.095
Operational Flight Program Updates & Test	-	-	-	-	-	-	-	-	-	-	-	13.131	-	-	-	-	-	13.131
Logistics Support	-	-	-	-	-	-	-	-	-	-	-	0.182	-	-	-	-	-	0.182
Production Testing	-	-	-	-	-	-	-	-	-	-	-	22.062	-	-	-	-	-	22.062
PMA Contractor Services	-	-	-	-	-	-	-	-	-	-	-	1.229	-	-	-	-	-	1.229
PMA Other Government Costs	-	-	-	-	-	-	-	-	-	-	-	0.982	-	-	-	-	-	0.982
<i>Subtotal: Support - Small Diameter Bomb II Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>37.681</i>	-	-	-	-	-	<i>37.681</i>
Gross/Weapon System Cost	-	-	-	-	-	0.000	-	-	0.000	0.198	510	100.861	-	-	0.000	0.198	510	100.861

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

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 / FPEPA	AFLCMG/PK Eglin AFB, FL	Jan 2019	Sep 2020	510	0.121	N	Aug 2018	Oct 2009

^(†) indicates the presence of a P-21

Remarks:

1. SDB II Lots 1-5 are options on the current EMD contract with Raytheon Missile System, Tucson, AZ, which were competitively awarded in August 2010. SDB II specifications for Lot 1-5 are defined in the EMD contract.
2. SDB II Lots 4-5 (FY2018-FY2019) are Fixed Price Not-To-Exceed pricing with an Economic Price Adjustment clause for labor and materials. These lots will be negotiated to firm fixed price prior to the end of the Lot 3 period of performance based on the certified cost or pricing data proposals.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

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 O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
SDB Increment II All Up Round Weapon																															
	1	2019	AF	510	0	510																							43	467	
	1	2019	NAVY (†)	750	0	750																							63	687	
	1	2019	Total	1,260	0	1,260																							106	1,154	
							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 2019 Air Force **Date:** February 2018

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 2021												Fiscal Year 2022												BALANCE	
O C C #	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	37													0	
	1	2019	NAVY (+)	750	63	687	62	62	62	63	63	63	62	62	63	63	62													0	
	1	2019	Total	1,260	106	1,154	105	105	105	106	106	106	105	105	106	106	99	-	-	-	-	-	-	-	-	-	-	-	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 2019 Air Force	Date: February 2018
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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 2019	1-8-5 For 2019	MAX For 2019	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	840	1,050	1,260	0	0	0	0	0	0	4	20	24

Remarks:
SDB II - Yearly production may be below the Minimum Sustainment Rate (MSR) due to the MSR being applicable to Lot 4 and out and the programs first three LRIP quantity buys maybe below MSR.

(†) 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 2019 Air Force **Date:** February 2018

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
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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: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.977	0.926	0.787	0.000	0.787	0.801	0.815	0.832	0.848	-	5.986
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.977	0.926	0.787	0.000	0.787	0.801	0.815	0.832	0.848	-	5.986
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.977	0.926	0.787	0.000	0.787	0.801	0.815	0.832	0.848	-	5.986

(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, 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 AMRAAM, Javelin, Griffin, Phalanx, Sidewinder, Standard Missiles, Stinger, Tomahawk, and numerous other weapon systems. Funds are provided within this appropriation to assess space-related industrial base concerns (MPC 6000).

Funding for this exhibit is contained in PE 78011F

Justification:

FY2019 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 FY2019 there are also funds for space-related industrial base assessments (MPC 6000).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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:** 0101213F, 0604933F

Line Item MDAP/MAIS Code: 253

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	17.095	6.334	15.767	0.000	15.767	12.647	30.727	87.027	100.883	474.447	744.927
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	4.100	6.850	51.100	62.050
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	17.095	6.334	15.767	0.000	15.767	12.647	30.727	82.927	94.033	423.347	682.877
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	4.100	-	4.100	6.850	15.000	17.700	18.400	-	62.050
Total Obligation Authority (<i>\$ in Millions</i>)	-	17.095	6.334	19.867	0.000	19.867	19.497	45.727	100.627	112.433	423.347	744.927

(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:

Funding for this mod in FY15 (\$4.7M) and FY16 (\$13.7M) was in PE0101213F, M30MLG, MM III Modifications.

The ICBM Fuze Modernization program will replace the current Mk21/W87 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 and will provide a 30-year 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 warhead as defined in the 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 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 fuze is urgently required to meet warfighter requirements and to ensure operational capability. ICBM Fuze Modernization will procure 693 Mk21/W87 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 Air Force Global Strike Command.

Life of Type Buy

The ICBM Fuze Modernization program will continue acquiring Life-of-Type Buys (LOTB) materials and components through FY19 to support both the Mk21/W87 and future Mk21A/IW1 Life Extension Program (LEP). The Mk21A/IW1 LEP will utilize similar replacement fuze components being developed by the ICBM Fuze Modernization program. Executing LOPB for Mk21A/IW1 LEP ensures this future program can fully leverage the material design, component design, and nuclear certification and qualification activities.

Long Lead Production

Begin long lead hardware purchases for Arming and Fuzing Assembly (AFA) production.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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:** 0101213F, 0604933F

Line Item MDAP/MAIS Code: 253

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		- / 0.000	- / 17.095	- / 6.334	- / 15.767	- / 0.000	- / 15.767
P-40	Total Gross/Weapon System Cost				- / -	- / 17.095	- / 6.334	- / 15.767	- / 0.000	- / 15.767

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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		- / 12.647	- / 30.727	- / 87.027	- / 100.883	- / 474.447	- / 744.927
P-40	Total Gross/Weapon System Cost				- / 12.647	- / 30.727	- / 87.027	- / 100.883	- / 474.447	- / 744.927

*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 modifications is provided in the P-3A exhibits.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	17.095	6.334	15.767	0.000	15.767	12.647	30.727	87.027	100.883	474.447	744.927
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	4.100	6.850	51.100	62.050
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	17.095	6.334	15.767	0.000	15.767	12.647	30.727	82.927	94.033	423.347	682.877
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	4.100	-	4.100	6.850	15.000	17.700	18.400	-	62.050
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	17.095	6.334	19.867	0.000	19.867	19.497	45.727	100.627	112.433	423.347	744.927

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

Description:

FY15-19 non-recurring costs include Life-of-Type Buys (LOTB) critical to affordably buy qualified Commercial Off-The-Shelf (COTS) parts for use during and after exposure to nuclear environments and to ensure commonality between the Air Force and the Navy. LOPB will be 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 interchangeable between the Services while others will have interchangeable sub assemblies. Pre-production planning activities will begin in FY18, accomplishing 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.

Program Overview

The ICBM Fuze Modernization program will replace the current Mk21/W87 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 fuze and will provide a 30-year 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 warhead as defined in the 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 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 fuze is urgently required to meet warfighter requirements and to ensure operational capability. ICBM Fuze Modernization will procure 693 Mk21/W87 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 Air Force Global Strike Command.

Life of Type Buy

The ICBM Fuze Modernization program will continue acquiring LOTB materials and components through FY19 to support both the Mk21/W87 and future Mk21A/IW-1 program. The Mk21A/IW-1 program will utilize similar replacement fuze components being developed by the ICBM Fuze Modernization program. Executing LOTB for Mk21A/IW-1 program ensures this future program can fully leverage the material design, component design, and nuclear certification and qualification activities.

Long Lead Procurement

Begin long lead hardware purchases for Arming and Fuzing Assembly production.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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:	
Milestone/Development Status		
The program entered Phase 6.3 Developmental Engineering in FY13 and will complete in FY19. The first flight test will be performed in FY19. The follow-on Phase 6.4 Production Engineering will complete development in FY22. The program will enter Phase 6.5 First Production in FY22. 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.		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
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: 0101213F, 0604933F					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 342.385	- / 172.956	- / 178.991	- / 172.902	- / -	- / 172.902	- / 161.199	- / 132.926	- / 60.016	- / 2.035	- / 0.000	- / 1,223.410	
Procurement													
<i>Modification Item 1 of 1: ICBM Fuze</i>													
B Kits													
Recurring													
ICBM Fuze:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / 5.926	- / -	- / 5.926	6 / 9.724	20 / 24.522	80 / 72.482	106 / 80.614	481 / 350.170	693 / 543.438	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 5.926	- / -	- / 5.926	- / 9.724	- / 24.522	- / 72.482	- / 80.614	- / 350.170	- / 543.438	
<i>Subtotal: ICBM Fuze</i>	- / -	- / -	- / -	- / 5.926	- / -	- / 5.926	- / 9.724	- / 24.522	- / 72.482	- / 80.614	- / 350.170	- / 543.438	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 5.926	- / -	- / 5.926	- / 9.724	- / 24.522	- / 72.482	- / 80.614	- / 350.170	- / 543.438	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / 17.095 ⁽¹⁾	- / 6.334 ⁽²⁾	- / 9.841 ⁽³⁾	- / -	- / 9.841	- / -	- / -	- / -	- / -	- / -	- / 33.270	
Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.272	- / 0.463	- / 1.864	- / 2.626	- / 15.392	- / 20.617	
SIM/TRAINER	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.400	6 / 0.200	- / -	- / -	12 / 0.600	
OTHER GOVT	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.856	- / 3.726	- / 8.730	- / 12.359	- / 80.183	- / 106.854	
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.795	- / 1.616	- / 3.751	- / 5.284	- / 28.702	- / 40.148	
<i>Subtotal: Support</i>	- / -	- / 17.095	- / 6.334	- / 9.841	- / -	- / 9.841	- / 2.923	6 / 6.205	6 / 14.545	- / 20.269	- / 124.277	12 / 201.489	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	17.095	6.334	15.767	0.000	15.767	12.647	30.727	87.027	100.883	474.447	744.927	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
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 (<i>in Months</i>): 4				Production Leadtime (<i>in Months</i>): 31			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Feb 2020	Feb 2021	Feb 2022	Feb 2023
Delivery Dates				Sep 2022	Sep 2023	Sep 2024	Sep 2025
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 693		

Footnotes:

- (1) Life of Type Buy, The ICBM Fuze Modernization program will continue acquiring LOTB materials and components through FY19 to support both the Mk21/W87 and future MK21A/IW-1 Program. The MK21A/IW-1 Program will utilize the same replacement fuze being developed by the ICBM Fuze Modernization program. Executing LOTB for the MK21A/IW-1 Program ensures this future program can fully leverage the material design, component design, and nuclear certification and qualification activities.
- (2) Life of Type Buy, The ICBM Fuze Modernization program will continue acquiring LOTB materials and components through FY19 to support both the Mk21/W87 and future MK21A/IW-1 Program. The MK21A/IW-1 Program will utilize the same replacement fuze being developed by the ICBM Fuze Modernization program. Executing LOTB for the MK21A/IW-1 Program ensures this future program can fully leverage the material design, component design, and nuclear certification and qualification activities.
- (3) Life of Type Buy, The ICBM Fuze Modernization program will continue acquiring LOTB materials and components through FY19 to support both the Mk21/W87 and future MK21A/IW-1 Program. The MK21A/IW-1 Program will utilize the same replacement fuze being developed by the ICBM Fuze Modernization program. Executing LOTB for the MK21A/IW-1 Program ensures this future program can fully leverage the material design, component design, and nuclear certification and qualification activities.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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: 0101213F, 0604933F
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Line Item MDAP/MAIS Code: 253

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	4.100	-	4.100	6.850	15.000	17.700	18.400	-	62.050
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	4.100	-	4.100	6.850	15.000	17.700	18.400	-	62.050
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	4.100	-	4.100	6.850	15.000	17.700	18.400	-	62.050

Description:

FY19 information includes basic raw materials and piece parts for subcomponent buildup for the first 6 units to be produced in FY22. FY20-FY23 information is for materials and piece parts for buildup of subcomponents for the AFAs produced in FY23-26. The program will realize efficiencies in cost per unit as production quantities increase.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
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
Program Elements for Code B Items: 0604933F		Other Related Program Elements: 0101213F, 0604933F

Line Item MDAP/MAIS Code: 253

Exhibits Schedule				Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	- / -	- / 4.100
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / 4.100	- / -	- / 4.100

Exhibits Schedule				FY 2020	FY 2021	FY 2022	FY 2023	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			- / 6.850	- / 15.000	- / 17.700	- / 18.400	- / -	- / 62.050
P-40	Total Gross/Weapon System Cost			- / 6.850	- / 15.000	- / 17.700	- / 18.400	- / -	- / 62.050

*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 2019 Air Force										Date: February 2018		
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 (2019) Award Date: May 2019		First System (2019) Completion Date: July 2022					Interval Between Systems: 1 Months					
ICBM Fuze Modernization		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <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>	To Complete <i>(Each)</i>	Total <i>(Each)</i>
Quantity		38	-	-	-	-	-	-	-	-	-	-
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <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>	To Complete <i>(\$ M)</i>	Total <i>(\$ M)</i>
CFE												
ICBM FUZE MOD Hardware: Arming and Fuzing Assembly		12	-	-	-	4.100	6.850	15.000	17.700	18.400	-	62.050
<i>Total: CFE</i>			-	-	-	4.100	6.850	15.000	17.700	18.400	-	62.050
Total Advance Procurement/Obligation Authority			-	-	-	4.100	6.850	15.000	17.700	18.400	-	62.050

UNCLASSIFIED

Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2019 Air Force						Date: February 2018	
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	
FY 2019							
Cost Elements	QPA (Each)	Production Leadtime (Months)	Unit Cost (\$ M)	Contract Forecast Date	2019 Qty (Each)	For FY	Total Cost Request (\$ M)
CFE							
ICBM FUZE MOD Hardware: Arming and Fuzing Assembly	6	38	0.683	May 2019	6		4.100
<i>Total: CFE</i>							4.100
Total Advance Procurement/Obligation Authority							4.100

Description:
 FY19 information includes basic raw materials and piece parts for subcomponent buildup for the first 6 units to be produced in FY22. FY20-FY23 information is for materials and piece parts for buildup of subcomponents for the AFAs produced in FY23-26. The program will realize efficiencies in cost per unit as production quantities increase.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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): B **Program Elements for Code B Items:** 0101213F, 0604851F, 0604933F **Other Related Program Elements:** 0101213F, 0303131F

Line Item MDAP/MAIS Code: 253

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	120.962	68.692	80.109	129.199	0.000	129.199	70.607	54.614	81.837	83.332	0.000	689.352
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	120.962	68.692	80.109	129.199	0.000	129.199	70.607	54.614	81.837	83.332	0.000	689.352
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	120.962	68.692	80.109	129.199	0.000	129.199	70.607	54.614	81.837	83.332	0.000	689.352

(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 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 FY19 is to support the operational capability of the Minuteman ICBM through 2030. Programs will include analysis of Diminishing Manufacturing Sources and Material Shortages (DMSMS) risks and procurement activities related to DMSMS.

The modifications being performed on LGM-30 include: Minuteman Minimum Essential Emergency Communications Network (MEECN) modification, LGM-30G ICBM Fuze Modernization, LGM-30G ICBM Cryptography Upgrade II (ICU II), LGM-30G Launch Control Center Block Upgrade (LCCBU), LGM-30G Launch Control Center Break-In-Kit (LCCB), LGM-30G Flight Test Telemetry and Termination System (FT3), Automatic Switching Unit (ASU), LGM-30G Remote Visual Assessment Phase II (RVA II) and LGM-30G T-9 Launch Facility Trainer Conversion.

Automatic Switching Unit (ASU) is a production new start program in FY19.

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

In FY17 and FY18, ICBM Modernization was transferred to PE0101213F, M30FLH, ICBM Modernization to provide transparency.

Starting in FY19, ICBM Modernization was transferred to PE0101328F, M30FLH, ICBM Modernization to align with new reentry vehicles program element.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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): B **Program Elements for Code B Items:** 0101213F, 0604851F, 0604933F **Other Related Program Elements:** 0101213F, 0303131F

Line Item MDAP/MAIS Code: 253

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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***	99999X / Low Cost Modifications (Other)				- / 1.537	- / 3.750	- / 2.000	- / 2.000	- / -	- / 2.000
P-3a	5910 / MINUTEMAN MEECN MODIFICATION (Capability Improvement)		A		- / 97.927	- / 9.621	- / 9.519	- / 14.668	- / 0.000	- / 14.668
P-3a	5916 / ICBM Cryptography Upgrade Increment II (Capability Improvement)		B		- / 0.000	- / 31.639	- / 29.559	- / 63.880	- / 0.000	- / 63.880
P-3a	5921 / MM LCC Block Upgrades (Service Life Extension)		B		- / 0.000	- / 0.000	- / 16.004	- / 26.346	- / 0.000	- / 26.346
P-3a	5925 / MM III Auto Switching Unit (ASU) (Service Life Extension)		B		- / 0.000	- / 0.000	- / 0.000	- / 6.052	- / 0.000	- / 6.052
P-3a	5927 / Airborne Launch Control System Replacement Increment I (Other)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	5928 / T-9 Launch Facility Trainer Conversion (T-9) (Other)		B		- / 3.098	- / 8.712	- / 6.024	- / 1.058	- / 0.000	- / 1.058
P-3a	5932 / LGM-30G Remote Visual Assessment Phase II (RVA II) (Other)		B		- / 0.000	- / 0.000	- / 16.131	- / 13.930	- / 0.000	- / 13.930
P-3a	5934 / LGM-30G Flight Test Telemetry and Termination System (FT3) (Other)		B		- / 0.000	- / 14.970	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB) (Other)		B		- / 0.000	- / 0.000	- / 0.872	- / 1.265	- / 0.000	- / 1.265
P-3a	5943 / ICBM Fuze Modernization (Service Life Extension)		B		- / 18.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	5947 / A/D Switch Replacement (Reliability & Maintainability)		B		- / -	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 120.962	- / 68.692	- / 80.109	- / 129.199	- / 0.000	- / 129.199

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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***	99999X / Low Cost Modifications (Other)				- / 2.000	- / 2.000	- / 2.000	- / 2.000	- / -	- / 17.287
P-3a	5910 / MINUTEMAN MEECN MODIFICATION (Capability Improvement)		A		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 131.735
P-3a	5916 / ICBM Cryptography Upgrade Increment II (Capability Improvement)		B		- / 29.280	- / 14.304	- / 50.494	- / -	- / -	- / 219.156
P-3a	5921 / MM LCC Block Upgrades (Service Life Extension)		B		- / 2.056	- / 0.000	- / 0.000	- / -	- / -	- / 44.406
P-3a	5925 / MM III Auto Switching Unit (ASU) (Service Life Extension)		B		- / 22.170	- / 20.060	- / 18.490	- / 13.013	- / -	- / 79.785
P-3a	5927 / Airborne Launch Control System Replacement Increment I (Other)		B		- / 0.000	- / 0.000	- / 0.000	- / 57.859	- / 0.000	- / 57.859
P-3a	5928 / T-9 Launch Facility Trainer Conversion (T-9) (Other)		B		- / 1.940	- / 0.000	- / 0.000	- / -	- / -	- / 20.832
P-3a	5932 / LGM-30G Remote Visual Assessment Phase II (RVA II) (Other)		B		- / 13.161	- / 12.060	- / 2.492	- / -	- / -	- / 57.774
P-3a	5934 / LGM-30G Flight Test Telemetry and Termination System (FT3) (Other)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 14.970
P-3a	5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB) (Other)		B		- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 2.137
P-3a	5943 / ICBM Fuze Modernization (Service Life Extension)		B		- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 18.400

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101213F, 0604851F, 0604933F	Other Related Program Elements: 0101213F, 0303131F
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Line Item MDAP/MAIS Code: 253

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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	5947 / A/D Switch Replacement (Reliability & Maintainability)		B		- / 0.000	- / 6.190	- / 8.361	- / 10.460	- / -	- / 25.011
P-40	Total Gross/Weapon System Cost				- / 70.607	- / 54.614	- / 81.837	- / 83.332	- / 0.000	- / 689.352

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

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5910 / MINUTEMAN MEECN MODIFICATION

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	97.927	9.621	9.519	14.668	0.000	14.668	0.000	0.000	0.000	-	-	131.735
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	97.927	9.621	9.519	14.668	0.000	14.668	0.000	0.000	0.000	-	-	131.735
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	97.927	9.621	9.519	14.668	0.000	14.668	0.000	0.000	0.000	-	-	131.735

(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:

The Minuteman Minimum Essential Emergency Communications Network (MEECN) Program Upgrade (MMPU) modernizes existing Minuteman III Intercontinental Ballistic Missile (ICBM) Launch Control Center (LCC) Extremely High Frequency (EHF) communications to provide an Advanced EHF (AEHF) capability and a capability for Missile Combat Crew Members to have operator control of the terminal in the LCC to switch between satellites. This upgrade is compatible with AEHF satellite and the supporting key management infrastructure (Crypto Interoperability). AEHF is an Extended Data Rate (XDR) waveform that provides more secure transmit/receive at high data rate frequencies than the lower data rate frequencies currently used on Milstar satellites. The AEHF terminal will provide both receive and report-back capability. These modifications comply with USSTRATCOM requirements for strategic terminals to communicate at higher data rates. MMPU includes upgrades to 45 missile wing LCCs and 1 test LCC at Vandenberg AFB, CA; 3 Organizational Maintenance System (OMS) terminals; and 1 test terminal at Hill AFB, UT Space Missile Integration Complex (SMIC). The program also includes modifications to the Missile Procedures Trainers (MPT) and regression testing of fielded systems with AEHF and Milstar satellite and supporting infrastructure. Seven (7) MMP Upgrade terminals were procured for RDT&E purposes and will be upgraded and installed at test and sustainment facilities to support MMPU systems.

Milestone/Development Status

Minuteman MEECN Program Upgrade (MMPU) entered Engineering and Manufacturing Development (EMD) 15 January 2008. Production and Deployment phase began 27 December 2011. Force Development Evaluation (FDE) was completed on 7 February 2015. A provisional fielding decision was received on 25 September 2015, then rescinded on 2 May 2016. Successful OMS installation on 30 March 2016. System Operational Test (SOT) was successfully completed in October 2017. Fielding decision approved on 29 December 2017. Installation of the operational LCCs begins in FY18 with Initial Operational Capability (IOC) planned for 1QFY19.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5910 / MINUTEMAN MEECN MODIFICATION			
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: 0303131F					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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: HAC/RMPE & TEU/TOC</i>													
A Kits													
Recurring													
HAC/RMPE & TEU/TOC:INSTALL KITS Group A (Active)	50 / 4.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 4.761	
<i>Subtotal: Recurring</i>	- / 4.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.761	
B Kits													
Recurring													
HAC/RMPE & TEU/TOC:EQUIPMENT Group B (Active)	50 / 18.621	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 18.621	
<i>Subtotal: Recurring</i>	- / 18.621	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.621	
<i>Subtotal: HAC/RMPE & TEU/TOC</i>	- / 23.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 23.382	
<i>Subtotal: Procurement, All Modification Items</i>	- / 23.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 23.382	
Support (All Modification Items)													
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
GROUP B: TOTAL NONRECURRING	- / 5.640	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.640	
SIM/TRAINER	- / 6.835	- / 0.602	- / -	- / 0.580	- / -	- / 0.580	- / -	- / -	- / -	- / -	- / -	- / 8.017	
SUPPORT-EQUIP	- / 6.180	- / 0.518	- / 4.778	- / 5.082	- / -	- / 5.082	- / -	- / -	- / -	- / -	- / -	- / 16.558	
ICS-Labor	- / 18.722	- / 3.718	- / 3.333	- / 4.755	- / -	- / 4.755	- / -	- / -	- / -	- / -	- / -	- / 30.528	
ICS-Material	- / 4.253	- / 1.505	- / 0.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.801	
OTHER GOVT	- / 1.639	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.639	
PMA - Contractor Services	- / 16.333	- / 0.496	- / 1.365	- / 3.490	- / -	- / 3.490	- / -	- / -	- / -	- / -	- / -	- / 21.684	
Mod of Spares	- / 4.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.164	
<i>Subtotal: Support</i>	- / 63.766	- / 6.839	- / 9.519	- / 13.907	- / -	- / 13.907	- / -	- / -	- / -	- / -	- / -	- / 94.031	
Installation													
<i>Modification Item 1 of 1: HAC/RMPE & TEU/TOC</i>	2 / 10.779	0 / 2.782	8 / 0.000	19 / 0.761	- / -	19 / 0.761	19 / 0.000	2 / 0.000	- / -	- / -	- / -	50 / 14.322	
<i>Subtotal: Installation</i>	2 / 10.779	- / 2.782	8 / 0.000	19 / 0.761	- / -	19 / 0.761	19 / -	2 / -	- / -	- / -	- / -	50 / 14.322	
Total													
Total Cost (Procurement + Support + Installation)	97.927	9.621	9.519	14.668	0.000	14.668	0.000	0.000	0.000	0.000	-	131.735	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5910 / MINUTEMAN MEECN MODIFICATION

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 1 of 1: HAC/RMPE & TEU/TOC

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Largo, FL
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 14

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	2 / 10.779	0 / 2.782	8 / 0.000	19 / 0.761	- / -	19 / 0.761	19 / 0.000	2 / 0.000	- / -	- / -	- / -	50 / 14.322
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 10.779	0 / 2.782	8 / 0.000	19 / 0.761	- / -	19 / 0.761	19 / 0.000	2 / 0.000	- / -	- / -	- / -	50 / 14.322

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	2	-	-	-	-	-	-	1	7	6	2	4	7	5	1	6	7	2	-	-	-	-	-	-	-	-	-	-	-	0	50
Out	2	-	-	-	-	-	-	1	7	6	2	4	7	5	1	6	7	2	-	-	-	-	-	-	-	-	-	-	-	0	50

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	31.639	29.559	63.880	0.000	63.880	29.280	14.304	50.494	-	-	219.156
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	31.639	29.559	63.880	0.000	63.880	29.280	14.304	50.494	-	-	219.156
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	31.639	29.559	63.880	0.000	63.880	29.280	14.304	50.494	-	-	219.156

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

Initial Spares (<i>\$ in Millions</i>)	-	-	1.238	4.190	-	4.190	0.150	-	-	-	-	5.578
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, irreversible transformation and continuous signal lockout 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 75 days annually while reducing associated labor costs.

FY18 included support equipment required for operational units and the depot repair facility to perform fault isolation, component replacement, and functional testing.

Milestone/Development Status

ICU II Engineering & Manufacturing Development has been ongoing since FY13. In FY16, ICU II was restructured to address an emerging supply chain requirement. ICU II testing with the initial integrated circuit solution (Field Programmable Gate Array - FPGA) has been completed and identified several issues requiring additional development. Follow-on testing for the integrated circuit solution (Application Specific Integrated Circuit - ASIC) will continue through Jul 18.

Key development activities include:

- ICU II PDR: Mar 13
- ICU II CDR: Mar 14
- ICU II Milestone C: Aug 18
- ICU II Production and Deployment Phase: 4Q2018-3Q2023
- ICU II RAA (FOC): 3Q2023

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
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) : B							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Capability Improvement				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 178.870	- / 27.286	- / -	- / 14.540	- / -	- / 14.540	- / 2.084	- / 0.496	- / -	- / -	- / -	- / 123.276	
Procurement													
<i>Modification Item 1 of 1: A4 Drawer Replacement</i>													
B Kits													
Recurring													
A4 Drawer Replacement:EQUIPMENT Group B (Active)	- / -	- / -	50 / 25.513	216 / 49.290	- / -	216 / 49.290	191 / 24.560	- / 17.172	- / 5.822	- / -	- / -	457 / 112.357	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 25.513	- / 49.290	- / -	- / 49.290	- / 24.560	- / 17.172	- / 5.822	- / -	- / -	- / 112.357	
<i>Subtotal: A4 Drawer Replacement</i>	- / -	- / -	- / 25.513	- / 49.290	- / -	- / 49.290	- / 24.560	- / 17.172	- / 5.822	- / -	- / -	- / 112.357	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 25.513	- / 49.290	- / -	- / 49.290	- / 24.560	- / 17.172	- / 5.822	- / -	- / -	- / 112.357	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.183	- / 0.591	- / 0.135	- / -	- / -	- / 0.909	
SUPPORT-EQUIP	- / -	- / -	- / -	- / 15.883	- / -	- / 15.883	- / 0.532	- / 4.840	- / 6.737	- / -	- / -	- / 17.992	
Change Orders	- / -	- / 31.639	- / 3.524	- / 15.554	- / -	- / 15.554	- / 0.000	- / 0.179	- / 36.278	- / -	- / -	- / 77.174	
Data	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.195	- / 0.000	- / 0.000	- / -	- / -	- / 0.195	
A&AS	- / -	- / -	- / -	- / 1.267	- / -	- / 1.267	- / 1.298	- / 1.330	- / 1.361	- / -	- / -	- / 5.256	
Type 1 Training	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 1.381	- / 0.000	- / 0.000	- / -	- / -	- / 1.381	
PMA - Other Gov't Costs	- / -	- / -	- / 0.522	- / 1.886	- / -	- / 1.886	- / 1.131	- / 0.192	- / 0.161	- / -	- / -	- / 3.892	
<i>Subtotal: Support</i>	- / -	- / 31.639	- / 4.046	- / 14.590	- / -	- / 14.590	- / 4.720	- / 7.132	- / 44.672	- / -	- / -	- / 106.799	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	31.639	29.559	63.880	0.000	63.880	29.280	14.304	50.494	-	-	219.156	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
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) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: A4 Drawer Replacement							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 12			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Sep 2018	Sep 2019	Sep 2020			
Delivery Dates		Sep 2019	Sep 2020	Sep 2021			
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force	Date: February 2018
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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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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	16.004	26.346	0.000	26.346	2.056	0.000	0.000	-	-	44.406
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	16.004	26.346	0.000	26.346	2.056	0.000	0.000	-	-	44.406
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	16.004	26.346	0.000	26.346	2.056	0.000	0.000	-	-	44.406
<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>)	-	-	1.348	3.696	-	3.696	-	-	-	-	-	5.044
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The LCCBU program will address several elements within the Launch Control Center (LCC) that are experiencing supportability issues and negatively impacting voice communications in the MM missile fields. Components will be procured as a single modification kit and installed as a single kit at each LCC. It will consist of five primary replacement efforts:

- 1) Journal Memory Loader (JML) - replaces the JML with a modern data storage solution which will increase the available memory required to support annual software changes and mitigate Floppy Disk obsolescence concerns.
- 2) Floppy Disk Drive (FDD) - replaces the legacy FDDs which are no longer manufactured with a modern, supportable hardware solution.
- 3) Voice Communications Control Panel (VCCP) - replaces the current deficient communication equipment to provide the voice communications quality required to perform the ICBM mission.
- 4) Weapon System Control Console (WSCC) Printer - replaces the current printer that is no longer produced and is unsupportable due to aging hardware and a lack of qualified vendors for replacement/repair components.
- 5) Oxygen Regeneration Unit (ORU) - replaces the current unsupportable system to provide the crew with breathable air during periods when the LCC is locked down. All LCCBU efforts will support the 45 operational LCCs and additional support equipment/test/maintenance locations.

All LCCBU efforts will support the 45 operational LCCs and additional test/maintenance/training locations. RDT&E efforts are included in PE 0101213F. Development for applicable components will begin in FY15 and transition to production in FY19.

Milestone/Development Status

LCC Block Upgrades Milestone B: Jul 17
 LCC Block Upgrades EMD: 4QFY2017-2QFY2019
 LCC Block Upgrades Milestone C: Dec 18
 LCC Block Upgrades Production and Deployment: 1QFY2019-4QFY2020
 LCC Block Upgrades RAA: Jul 20

Development for applicable components began in FY15 and transition to production in FY19.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force											Date: February 2018		
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 8.708	- / 17.354	- / 22.294	- / 2.963	- / -	- / 2.963	- / -	- / -	- / -	- / -	- / -	- / 51.319	
Procurement													
<i>Modification Item 1 of 1:</i> Modification Kit													
B Kits													
Recurring													
Modification Kit:EQUIPMENT Group B (Active)	- / -	- / -	24 / 14.798	37 / 22.352	- / -	37 / 22.352	- / -	- / -	- / -	- / -	- / -	61 / 37.150	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 14.798	- / 22.352	- / -	- / 22.352	- / -	- / -	- / -	- / -	- / -	- / 37.150	
<i>Subtotal: Modification Kit</i>	- / -	- / -	- / 14.798	- / 22.352	- / -	- / 22.352	- / -	- / -	- / -	- / -	- / -	- / 37.150	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 14.798	- / 22.352	- / -	- / 22.352	- / -	- / -	- / -	- / -	- / -	- / 37.150	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / 0.967	- / 3.058	- / -	- / 3.058	- / 0.432	- / -	- / -	- / -	- / -	- / 4.457	
Data	- / -	- / -	- / 0.239	- / 0.936	- / -	- / 0.936	- / -	- / -	- / -	- / -	- / -	- / 1.175	
<i>Subtotal: Support</i>	- / -	- / -	- / 1.206	- / 3.994	- / -	- / 3.994	- / 0.432	- / -	- / -	- / -	- / -	- / 5.632	
Installation													
<i>Modification Item 1 of 1:</i> Modification Kit	0 / 0.000	- / -	- / -	- / -	- / -	- / -	61 / 1.624	- / -	- / -	- / -	- / -	61 / 1.624	
<i>Subtotal: Installation</i>	0 / 0.000	- / -	- / -	- / -	- / -	- / -	61 / 1.624	- / -	- / -	- / -	- / -	61 / 1.624	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	16.004	26.346	0.000	26.346	2.056	0.000	0.000	-	-	44.406	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

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): 3	Production Leadtime (in Months): 5
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Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Jan 2019	Jan 2019				
Delivery Dates		Jun 2019	Jun 2019				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.639	- / -	- / -	- / -	- / -	24 / 0.639
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	37 / 0.985	- / -	- / -	- / -	- / -	37 / 0.985
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	61 / 1.624	- / -	- / -	- / -	- / -	61 / 1.624

Installation Schedule

PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	61	
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	0	61	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

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) : B **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.052	0.000	6.052	22.170	20.060	18.490	13.013	-	79.785
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.052	0.000	6.052	22.170	20.060	18.490	13.013	-	79.785
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.052	0.000	6.052	22.170	20.060	18.490	13.013	-	79.785

(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, P-3A Mod 5925, MM III Auto Switching Unit (ASU) , is a new start. The ASU Program will replace the obsolete Auto Switching Unit, Diesel Electric Unit, and Minuteman Power Processor with modern COTS 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

ASU PDR: Mar 17
ASU Milestone B: May 17
ASU CDR: May 18
ASU Milestone C: Mar 19
ASU RAA: Jan 25

ASU replacement development began in FY17 and is scheduled to transition to production in FY19.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
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) : 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 4.993	- / 5.796	- / 10.185	- / 3.428	- / -	- / 3.428	- / -	- / -	- / -	- / -	- / -	- / 24.402	
Procurement													
Modification Item 1 of 1: Auto Switching Unit													
B Kits													
Recurring													
Auto Switching Unit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	79 / 4.718	- / -	79 / 4.718	136 / 15.357	106 / 13.108	106 / 11.409	104 / 6.913	- / -	531 / 51.505	
Subtotal: Recurring	- / -	- / -	- / -	- / 4.718	- / -	- / 4.718	- / 15.357	- / 13.108	- / 11.409	- / 6.913	- / -	- / 51.505	
Subtotal: Auto Switching Unit	- / -	- / -	- / -	- / 4.718	- / -	- / 4.718	- / 15.357	- / 13.108	- / 11.409	- / 6.913	- / -	- / 51.505	
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 4.718	- / -	- / 4.718	- / 15.357	- / 13.108	- / 11.409	- / 6.913	- / -	- / 51.505	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.771	- / -	- / 0.771	- / 0.763	- / 0.786	- / 0.791	- / -	- / -	- / 3.111	
Subtotal: Support	- / -	- / -	- / -	- / 0.771	- / -	- / 0.771	- / 0.763	- / 0.786	- / 0.791	- / -	- / -	- / 3.111	
Installation													
Modification Item 1 of 1: Auto Switching Unit	- / -	- / -	- / -	79 / 0.563	- / -	79 / 0.563	136 / 6.050	106 / 6.166	106 / 6.290	104 / 6.100	- / -	531 / 25.169	
Subtotal: Installation	- / -	- / -	- / -	79 / 0.563	- / -	79 / 0.563	136 / 6.050	106 / 6.166	106 / 6.290	104 / 6.100	- / -	531 / 25.169	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	6.052	0.000	6.052	22.170	20.060	18.490	13.013	-	79.785	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

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) : B	MDAP/MAIS Code:
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Modification Item 1 of 1: Auto Switching Unit

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3
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Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023
Delivery Dates			Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	79 / 0.563	- / -	79 / 0.563	- / -	- / -	- / -	- / -	- / -	79 / 0.563
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	136 / 6.050	- / -	- / -	- / -	- / -	136 / 6.050
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	106 / 6.166	- / -	- / -	- / -	106 / 6.166
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	106 / 6.290	- / -	- / -	106 / 6.290
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	104 / 6.100	- / -	104 / 6.100
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	79 / 0.563	- / -	79 / 0.563	136 / 6.050	106 / 6.166	106 / 6.290	104 / 6.100	- / -	531 / 25.169

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	-	-	-	-	-	79	-	-	-	136	-	-	-	106	-	-	-	106	-	-	-	104	-	-	0	531
Out	0	-	-	-	-	-	-	-	-	-	-	-	79	-	-	-	136	-	-	-	106	-	-	-	106	-	-	-	104	0	531

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5927 / Airborne Launch Control System Replacement Increment I

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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.859	0.000	57.859
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.859	0.000	57.859
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.859	0.000	57.859

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	0.177	0.205	-	-	-	0.382
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airborne Launch Control System (ALCS) Replacement Program will replace Hardened Radio Receiver equipment within 450 operational MMIII launch facilities and replace the airborne suite of ALCS equipment on E-6B aircraft. Additional units will be procured to accommodate sustainment and support activities. The procurement quantities identified in each FY will be the sum of the number of Hardened Radio Receiver units and the airborne ALCS suite units.

All 450 Launch Facilities, a classified number of operational E-6B aircraft, and additional units for test/maintenance/training locations.

Milestone/Development Status RDT&E efforts are included in PE 0101213F. Development for applicable components will begin in FY15 and transition to production in FY23.

Milestone/Development Status

ALCS-R PDR: Apr 19
 ALCS-R Milestone B: Nov 20
 ALCS-R CDR: May 21
 ALCS-R Milestone C: Nov 22

Development for applicable components began in FY15 and will transition to production in FY22.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5927 / Airborne Launch Control System Replacement Increment I			
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 15.994	- / 26.747	- / 78.492	- / 82.974	- / -	- / 82.974	- / 100.066	- / 121.442	42 / 101.576	- / 103.425	- / -	42 / 630.716	
Procurement													
<i>Modification Item 1 of 1: ALCS</i>													
B Kits													
Recurring													
ALCS:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	106 / 49.982	- / -	106 / 49.982
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 49.982	- / -	- / 49.982
<i>Subtotal: ALCS</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 49.982	- / -	- / 49.982
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 49.982	- / -	- / 49.982
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.877	- / -	- / 17.877
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.877	- / -	- / 17.877
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.859	0.000	57.859

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications			Modification Number / Title: 5927 / Airborne Launch Control System Replacement Increment I	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: ALCS							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							Mar 2023
Delivery Dates							Mar 2024
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 106		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5928 / T-9 Launch Facility Trainer Conversion (T-9)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.098	8.712	6.024	1.058	0.000	1.058	1.940	0.000	0.000	-	-	20.832
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.098	8.712	6.024	1.058	0.000	1.058	1.940	0.000	0.000	-	-	20.832
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.098	8.712	6.024	1.058	0.000	1.058	1.940	0.000	0.000	-	-	20.832

(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:

LGM-30G T-9 Modification (T-9) modifies the Launch Facility (LF) trainer at Malmstrom AFB to match the current Minuteman configuration necessary to support maintenance training for Missile, Facilities and Electro-mechanical Maintenance Team technicians. The T-9 modification will reduce reliance on workarounds using non-training LF assets improving efficiency and reducing costs related to training. Required modifications will be performed by contractor, organizational, and intermediate maintenance teams.

Milestone/Development Status

No development effort is required for this modification.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5928 / T-9 Launch Facility Trainer Conversion (T-9)			
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:					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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: T-9</i>													
B Kits													
Recurring													
T-9:EQUIPMENT Group B (Active)	- / -	1 / 8.113	- / 5.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 13.650	
<i>Subtotal: Recurring</i>	- / -	- / 8.113	- / 5.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.650	
<i>Subtotal: T-9</i>	- / -	- / 8.113	- / 5.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.650	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 8.113	- / 5.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.650	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / 1.100	- / 0.599	- / 0.487	- / 1.058	- / -	- / 1.058	- / 1.940	- / -	- / -	- / -	- / -	- / 5.184	
A&AS	- / 1.998	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.998	
<i>Subtotal: Support</i>	- / 3.098	- / 0.599	- / 0.487	- / 1.058	- / -	- / 1.058	- / 1.940	- / -	- / -	- / -	- / -	- / 7.182	
Installation													
<i>Modification Item 1 of 1: T-9</i>	- / -	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000	
<i>Subtotal: Installation</i>	- / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	
Total													
Total Cost (Procurement + Support + Installation)	3.098	8.712	6.024	1.058	0.000	1.058	1.940	0.000	0.000	-	-	20.832	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5928 / T-9 Launch Facility Trainer Conversion (T-9)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 1 of 1: T-9

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Utah
Administrative Leadtime (in Months): 11	Production Leadtime (in Months): 36

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2017						
Delivery Dates	Oct 2020						

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	0	1

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	16.131	13.930	0.000	13.930	13.161	12.060	2.492	-	-	57.774
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	16.131	13.930	0.000	13.930	13.161	12.060	2.492	-	-	57.774
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	16.131	13.930	0.000	13.930	13.161	12.060	2.492	-	-	57.774

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

Description:

The LGM-30G RVA II program will provide the following capabilities: situational awareness for both ground and airborne security forces; increasing cybersecurity posture; adding video archival capability; providing additional backup power; and complementing the existing security intrusion detection systems located on each LF - Improved Minuteman Physical Security System (IMPSS) alarm.

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: 2QFY2017-1QFY2019
- RVA II PDR: Oct 17
- RVA II CDR: Jun 18
- RVA II Milestone C: Dec 18
- Production and Development: 1QFY2019-3QFY2022
- RVA II IOC: Jun 20
- RVA II FOC: May 22

EMD awarded in FY17 and is expected to complete in FY19 at which time production will commence.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force											Date: February 2018		
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 0.770	- / 1.532	- / 4.342	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.644	
Procurement													
<i>Modification Item 1 of 1: RVA II</i>													
B Kits													
Recurring													
RVA II:EQUIPMENT Group B (Active)	- / -	- / -	0 / 16.131	1 / 13.414	- / -	1 / 13.414	1 / 10.402	1 / 9.267	- / -	- / -	- / -	3 / 49.214	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 16.131	- / 13.414	- / -	- / 13.414	- / 10.402	- / 9.267	- / -	- / -	- / -	- / 49.214	
<i>Subtotal: RVA II</i>	- / -	- / -	- / 16.131	- / 13.414	- / -	- / 13.414	- / 10.402	- / 9.267	- / -	- / -	- / -	- / 49.214	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 16.131	- / 13.414	- / -	- / 13.414	- / 10.402	- / 9.267	- / -	- / -	- / -	- / 49.214	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.516	- / -	- / 0.516	- / 0.529	- / 0.541	- / 0.242	- / -	- / -	- / 1.828	
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 0.516	- / -	- / 0.516	- / 0.529	- / 0.541	- / 0.242	- / -	- / -	- / 1.828	
Installation													
<i>Modification Item 1 of 1: RVA II</i>	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.230	1 / 2.252	1 / 2.250	- / -	- / -	3 / 6.732	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.230	1 / 2.252	1 / 2.250	- / -	- / -	3 / 6.732	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	16.131	13.930	0.000	13.930	13.161	12.060	2.492	-	-	57.774	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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): 4	Production Leadtime (in Months): 9

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jul 2019	Jul 2020	Jul 2021		
Delivery Dates			Apr 2020	Apr 2021	Apr 2022		

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.230	- / -	- / -	- / -	- / -	1 / 2.230
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.252	- / -	- / -	- / -	1 / 2.252
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.250	- / -	- / -	1 / 2.250
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.230	1 / 2.252	1 / 2.250	- / -	- / -	3 / 6.732

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	0	3
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	0	3

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5934 / LGM-30G Flight Test Telemetry and Termination System (FT3)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	14.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	14.970
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	14.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	14.970
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	14.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	14.970

(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:

LGM-30G Flight Test Telemetry and Termination (FT3), will replace the current Instrumentation Wafer and Flight Destruct System (FDS) capability, and modify the Launch Support System (LSS), used during MM III Operational Test Launches (OTLs). The current system is becoming unsupportable and does not meet updated Range Safety Standards as directed in Range Commanders Council (RCC) 319 and RCC 324. Air Force Global Strike Command (AFGSC) approved the AF Form 1067 for the instrumentation wafer in Jan 2014 and the AF Form 1067 for LSS/FDS in Jan 2015.

The Instrumentation Wafer and FDS replace the currently unsupportable Mod 7 wafer and Automated Ordnance Destruct System prior to supplies becoming exhausted in FY19. LSS replaces the current unique, specialized test system at Vandenberg AFB used to monitor and control test launch flights and ground support equipment. The current LSS is experiencing supportability issues with failure trends increasing due to hardware aging and obsolescence. A new LSS is required to field the Instrumentation Wafer and the FDS. All capabilities must be replaced to continue MM III operations through fielding of the Ground Based Strategic Deterrent (GBSD).

Milestone/Development Status

In FY14, development was initiated under the Instrumentation Wafer Replacement Program (within PE 0604851F). In FY15, capability for the Flight Destruct System and Launch Support System were added to provide a full FT3 capability.

Full development for FT3 use on MM III OTLs began in FY15 and will continue through transition of the instrumentation wafer and flight destruct capabilities into procurement and delivery of the launch support system capability.

Key FT3 development activities include:

- FT3 PDR (Jun 2016)
- FT3 Milestone B (Apr 2017)
- FT3 CDR (May 2018)
- FT3 Milestone C (2QFY2020)
- FT3 RAA (3QFY2020)

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5934 / LGM-30G Flight Test Telemetry and Termination System (FT3)			
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 41.634	- / 60.958	- / 39.868	3 / 33.229	- / -	3 / 33.229	5 / 4.916	- / 3.271	- / 11.033	- / -	- / -	8 / 194.909	
Procurement													
<i>Modification Item 1 of 1: FT3</i>													
B Kits													
Recurring													
FT3:EQUIPMENT Group B (Active)	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
<i>Subtotal: FT3</i>	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
Support (All Modification Items)													
Change Orders	- / -	- / 14.970	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.970	
<i>Subtotal: Support</i>	- / -	- / 14.970	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.970	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	14.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	14.970

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications			Modification Number / Title: 5934 / LGM-30G Flight Test Telemetry and Termination System (FT3)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: FT3							
Manufacturer Information							
Manufacturer Name: Boeing				Manufacturer Location: Hill Air Force Base, UT			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 8		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.872	1.265	0.000	1.265	0.000	0.000	0.000	-	-	2.137
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.872	1.265	0.000	1.265	0.000	0.000	0.000	-	-	2.137
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.872	1.265	0.000	1.265	0.000	0.000	0.000	-	-	2.137

(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:

The Launch Control Center Break-in-Kit (LCCB) program will develop a kit that will enable personnel to extract incapacitated missile combat crew members in the event the LCC crew becomes unresponsive and cannot open the LCC Blast Door. The LCCB is a new capability and has not been previously fielded.

Milestone/Development Status

LCCB Milestone B: Mar 17
 LCCB EMD: 2QFY2017-2QFY2019
 LCCB CDR: Mar 18
 LCCB Milestone C: Mar 19
 LCCB RAA: Jun 19

Development for applicable components began in FY17 and transitions to production in FY19.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force											Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M30MLG / MM III Modifications				Modification Number / Title: 5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB)					
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 0.396	- / 1.424	- / 3.671	- / 1.094	- / -	- / 1.094	- / -	- / -	- / -	- / -	- / -	- / 6.585	
Procurement													
<i>Modification Item 1 of 1: LCCB</i>													
B Kits													
Recurring													
LCCB:EQUIPMENT Group B (Active)	- / -	- / -	2 / 0.547	4 / 0.826	- / -	4 / 0.826	- / -	- / -	- / -	- / -	- / -	6 / 1.373	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.547	- / 0.826	- / -	- / 0.826	- / -	- / -	- / -	- / -	- / -	- / 1.373	
<i>Subtotal: LCCB</i>	- / -	- / -	- / 0.547	- / 0.826	- / -	- / 0.826	- / -	- / -	- / -	- / -	- / -	- / 1.373	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 0.547	- / 0.826	- / -	- / 0.826	- / -	- / -	- / -	- / -	- / -	- / 1.373	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / 0.325	- / 0.439	- / -	- / 0.439	- / -	- / -	- / -	- / -	- / -	- / 0.764	
<i>Subtotal: Support</i>	- / -	- / -	- / 0.325	- / 0.439	- / -	- / 0.439	- / -	- / -	- / -	- / -	- / -	- / 0.764	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.872	1.265	0.000	1.265	0.000	0.000	0.000	-	-	2.137	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications		Modification Number / Title: 5942 / LGM-30G Launch Control Center Break-In-Kit (LCCB)		
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:			
Modification Item 1 of 1: LCCB							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 3			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates		Apr 2019	Apr 2019				
Delivery Dates		Jul 2019	Jul 2019				
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5943 / ICBM Fuze Modernization
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	18.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.400
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	18.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.400
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	18.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.400

(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:

FY17-21 funding related to this effort has been transferred to PE 0101213F, M30FLH, ICBM Fuze Mod, to provide transparency.

FY15-16 non-recurring costs included Life-of-Program Buys critical to affordably buy qualified Commercial Off-The-Shelf (COTS) parts for use during and after exposure to nuclear environments and to ensure commonality between the Air Force and the Navy. The purchase of COTS parts will be executed jointly with the Navy to provide a pool of interchangeable, qualified, and certified parts for each service's ballistic missile weapon system. Procured parts will be delivered to the National Nuclear Security Agency's National Security Campus (NSC) in Kansas City for use in producing common component modules for the Air Force and Navy fuzes. Some component modules will be entirely interchangeable between the Services while others will have interchangeable subassemblies.

Milestone/Development Status

This program is tailored to use the joint DoD-DOE Phase 6.X processes for routine nuclear stockpile activities to align with Navy and National Nuclear Security Administration (NNSA) operations.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M30MLG / MM III Modifications						Modification Number / Title: 5943 / 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / 343.665	- / 163.227	- / 178.991	- / 172.902	- / -	- / 172.902	- / 161.199	- / 132.926	- / 60.016	- / 2.035	- / -	- / 1,214.961
Procurement												
<i>Modification Item 1 of 1: ICBM FUZE</i>												
B Kits												
Recurring												
ICBM FUZE:EQUIPMENT Group B (Active)	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
<i>Subtotal: ICBM FUZE</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
Support (All Modification Items)												
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
SUPPORT-EQUIP	- / 18.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.400
<i>Subtotal: Support</i>	- / 18.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.400
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	18.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.400

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Exhibit P-3a, Individual Modification: PB 2019 Air Force						Date: February 2018	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications			Modification Number / Title: 5943 / 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: Sandia National Labs				Manufacturer Location: Albuquerque, NM			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 18			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M30MLG / MM III Modifications	Modification Number / Title: 5947 / A/D Switch Replacement

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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	0.000	0.000	0.000	0.000	0.000	6.190	8.361	10.460	-	25.011
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	0.000	0.000	0.000	0.000	0.000	6.190	8.361	10.460	-	25.011
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	0.000	0.000	0.000	0.000	0.000	6.190	8.361	10.460	-	25.011

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	0.400	0.500	-	-	0.900
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The ADSR program designs, develops, fabricates and tests replacements for the aging Arm/Disarm (A/D) switches currently on the MM III Missile fleet. The A/D switch is responsible for completing or interrupting ordnance electrical circuits. A/D switches are placed at five key locations in the system: Inter-stage I-II, Stage II Liquid Injection Thrust Vector Control (LITVC) and Roll Control, Inter-stage II-III, PSRE Staging, and PSRE Isolation Valves. Aging and surveillance is an ongoing study to generate a tradeoff curve between reliability/availability and cost. Reliability/availability are monitored by periodic testing to discover unforeseen issues. Because all existing A/D switches cannot be repaired/refurbished, the number in inventory will eventually be inadequate to meet the need of the PDM cycle. Supply is estimated to deplete by approximately FY24 with repair/refurbish mitigation. Repair/refurbish is a reliable mitigation plan to meet the ongoing needs of the fleet while a manufacturer is selected and the manufacturing system is selected to develop a replacement A/D switch that meets requirements and PDM production quantities. ADSR is required to continue Booster and PSRE PDMs through 2036.

Milestone/Development Status

Key ADSR development activities include:

- ADSR Milestone B: Oct 18
- ADSR EMD: 1QFY2019-3QFY2022
- ADSR PDR: Jul 20
- ADSR CDR: Jan 20
- ADSR Milestone C: Jul 22
- ADSR Production and Deployment: 4QFY2022-4QFY2023

Development began in FY18 and will continue through FY21 and then transition to production.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1					P-1 Line Item Number / Title: M30MLG / MM III Modifications					Modification Number / Title: 5947 / A/D Switch Replacement			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: LGM-30G				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0101213F					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	- / -	- / 0.272	- / 1.142	- / -	- / 1.142	- / 9.900	- / 5.683	- / 1.907	- / 6.588	- / -	- / 25.492	
Procurement													
<i>Modification Item 1 of 1: ADSR</i>													
B Kits													
Recurring													
ADSR:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	321 / 7.644	321 / 6.646	- / -	642 / 14.290	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.644	- / 6.646	- / -	- / 14.290	
<i>Subtotal: ADSR</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.644	- / 6.646	- / -	- / 14.290	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.644	- / 6.646	- / -	- / 14.290	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.190	- / 0.717	- / 3.814	- / -	- / 10.721	
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.190	- / 0.717	- / 3.814	- / -	- / 10.721	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	-	-	0.000	0.000	0.000	0.000	0.000	6.190	8.361	10.460	-	25.011	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force						Date: February 2018	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: M30MLG / MM III Modifications			Modification Number / Title: 5947 / A/D Switch Replacement	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: ADSR							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates						Mar 2022	Mar 2023
Delivery Dates						Mar 2023	Mar 2024
Installation Information							
Method of Implementation (Organic): Org/Intermediate						Installation Quantity: 321	

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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
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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: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289

(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:

FY17 funding totals include \$26.620M requested for Overseas Contingency Operations to fund the modification of 302 legacy AGM-65 Maverick missiles to Laser Maverick missiles.

FY18 funding totals include \$10.000M requested for Overseas Contingency Operations to fund the modification of 91 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.

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 2019 Air Force **Date:** February 2018

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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	650003 / Laser Maverick Mod (Capability Improvement)		A		- / -	- / 26.902	- / 10.289	- / 0.288	- / 33.602	- / 33.890
P-40	Total Gross/Weapon System Cost				- / -	- / 26.902	- / 10.289	- / 0.288	- / 33.602	- / 33.890

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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	650003 / Laser Maverick Mod (Capability Improvement)		A		- / 0.294	- / 0.298	- / 0.305	- / 0.311	- / -	- / 72.289
P-40	Total Gross/Weapon System Cost				- / 0.294	- / 0.298	- / 0.305	- / 0.311	- / -	- / 72.289

*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 modifications is provided in the P-3A exhibits.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M65DAG / AGM-65D Maverick	Modification Number / Title: 650003 / Laser Maverick Mod

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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289

(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:

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 and responds to an Air Combat Command modification proposal requirement (AF1067) approved on 16 Aug 07. 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.

The FY19 Overseas Contingency Operation (OCO) request will fund the modification of 293 legacy AGM-65 Maverick missiles to Laser Maverick missiles. Missile modifications will replenish the Laser Maverick missiles expended in combat operations.

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.

Milestone/Development Status

N/A.

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Exhibit P-3a, Individual Modification: PB 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: M65DAG / AGM-65D Maverick						Modification Number / Title: 650003 / Laser Maverick Mod			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: MAVERICK				Modification Type: Capability Improvement				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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> AGM-65 Laser Sensor													
B Kits													
Recurring													
AGM-65 Laser Sensor:EQUIPMENT Group B (Active)	- / -	302 / 26.620	91 / 10.000	- / -	293 / 33.602	293 / 33.602	- / -	- / -	- / -	- / -	- / -	686 / 70.222	
<i>Subtotal: Recurring</i>	- / -	- / 26.620	- / 10.000	- / -	- / 33.602	- / 33.602	- / -	- / -	- / -	- / -	- / -	- / 70.222	
<i>Subtotal: AGM-65 Laser Sensor</i>	- / -	- / 26.620	- / 10.000	- / -	- / 33.602	- / 33.602	- / -	- / -	- / -	- / -	- / -	- / 70.222	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 26.620	- / 10.000	- / -	- / 33.602	- / 33.602	- / -	- / -	- / -	- / -	- / -	- / 70.222	
Support (All Modification Items)													
OTHER GOVT	- / -	- / 0.282	- / 0.289	- / 0.288	- / -	- / 0.288	- / 0.294	- / 0.298	- / 0.305	- / 0.311	- / -	- / 2.067	
<i>Subtotal: Support</i>	- / -	- / 0.282	- / 0.289	- / 0.288	- / -	- / 0.288	- / 0.294	- / 0.298	- / 0.305	- / 0.311	- / -	- / 2.067	
Installation													
<i>Modification Item 1 of 1:</i> AGM-65 Laser Sensor													
	- / -	302 / 0.000	91 / 0.000	- / -	293 / 0.000	293 / 0.000	- / -	- / -	- / -	- / -	- / -	686 / 0.000	
<i>Subtotal: Installation</i>	- / -	302 / -	91 / -	- / -	293 / -	293 / -	- / -	- / -	- / -	- / -	- / -	686 / -	
Total													
Total Cost (Procurement + Support + Installation)	-	26.902	10.289	0.288	33.602	33.890	0.294	0.298	0.305	0.311	-	72.289	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: M65DAG / AGM-65D Maverick	Modification Number / Title: 650003 / Laser Maverick Mod
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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: AGM-65 Laser Sensor

Manufacturer Information

Manufacturer Name: Raytheon Missile Systems	Manufacturer Location: Tucson, Arizona
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Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 16
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Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Oct 2017	Sep 2018	Sep 2019				
Delivery Dates	Feb 2019	Jan 2020	Jan 2021				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	302 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	302 / 0.000
FY 2018	- / -	- / -	91 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	91 / 0.000
FY 2019	- / -	- / -	- / -	- / -	293 / 0.000	293 / 0.000	- / -	- / -	- / -	- / -	- / -	293 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	302 / 0.000	91 / 0.000	- / -	293 / 0.000	293 / 0.000	- / -	- / -	- / -	- / -	- / -	686 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	-	-	-	-	-	302	-	-	-	91	-	-	-	293	-	-	-	-	-	-	-	-	-	-	0	686
Out	0	-	-	-	-	-	-	-	-	-	76	76	75	75	22	23	23	23	73	73	73	74	-	-	-	-	-	-	-	0	686

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	142.198	21.762	36.425	47.632	0.000	47.632	63.958	74.957	75.279	74.323	47.112	583.646
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	142.198	21.762	36.425	47.632	0.000	47.632	63.958	74.957	75.279	74.323	47.112	583.646
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	142.198	21.762	36.425	47.632	0.000	47.632	63.958	74.957	75.279	74.323	47.112	583.646

(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:

FY19 increased \$22.461M to support Rotary Switch and Guided Missile Flight Controller remanufacturing as well as Support Equipment efforts.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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)				- / 1.544	- / 0.100	- / 0.100	- / 0.090	- / -	- / 0.090
P-40a***	860002 / AGM-86B Service Life Extension Program 2 (Service Life Extension)				- / 27.998	- / 11.080	- / 18.522	- / 0.000	- / -	- / 0.000
P-40a***	860004 / AGM-86B Service Life Extension Program 3 (Service Life Extension)				- / 4.838	- / 5.539	- / 5.267	- / -	- / -	- / -
P-40a***	860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit (Capability Improvement)				- / 99.568	- / 5.039	- / 12.529	- / 4.080	- / -	- / 4.080
P-40a***	860011 / Support Equipment (Reliability & Maintainability)				- / -	- / -	- / -	- / 2.710	- / -	- / 2.710
P-40a***	860101 / AGM-86B Service Life Extension Program 1 (Service Life Extension)				- / 8.250	- / 0.004	- / 0.007	- / 0.010	- / -	- / 0.010
P-40a***	860106 / W-10 Cable (Service Life Extension)				- / -	- / -	- / -	- / 0.574	- / -	- / 0.574
P-40a***	860107 / Fuze Assembly (Service Life Extension)				- / -	- / -	- / -	- / 4.674	- / -	- / 4.674
P-40a***	860108 / Inertial Navigation Element (INE) (Reliability & Maintainability)				- / -	- / -	- / -	- / 0.000	- / 0.000	- / 0.000
P-3a	860103 / Warhead Arming Device (WAD) (Service Life Extension)		B		- / 0.000	- / 0.000	- / 0.000	- / 8.590	- / 0.000	- / 8.590
P-3a	860104 / Rotary Switch (RS) (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 7.200	- / 0.000	- / 7.200
P-3a	860105 / Guided Missile Flight Controller (GFMC) (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 19.704	- / 0.000	- / 19.704
P-40	Total Gross/Weapon System Cost				- / 142.198	- / 21.762	- / 36.425	- / 47.632	- / 0.000	- / 47.632

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	- / -	- / 2.134
P-40a***	860002 / AGM-86B Service Life Extension Program 2 (Service Life Extension)				- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 57.600
P-40a***	860004 / AGM-86B Service Life Extension Program 3 (Service Life Extension)				- / -	- / -	- / -	- / -	- / -	- / 15.644
P-40a***	860009 / AGM-86B CALCM/ALCM Test Instrumentation Kit (Capability Improvement)				- / 17.611	- / 18.984	- / 23.699	- / 3.888	- / 0.000	- / 185.398
P-40a***	860011 / Support Equipment (Reliability & Maintainability)				- / 3.051	- / 2.441	- / 2.102	- / 2.793	- / -	- / 13.097
P-40a***	860101 / AGM-86B Service Life Extension Program 1 (Service Life Extension)				- / -	- / -	- / -	- / -	- / -	- / 8.271
P-40a***	860106 / W-10 Cable (Service Life Extension)				- / 0.592	- / 0.609	- / 0.227	- / 0.056	- / -	- / 2.058
P-40a***	860107 / Fuze Assembly (Service Life Extension)				- / 4.975	- / 5.145	- / 1.375	- / 0.000	- / 0.000	- / 16.169
P-40a***	860108 / Inertial Navigation Element (INE) (Reliability & Maintainability)				- / 9.695	- / 20.470	- / 19.723	- / 17.827	- / 0.036	- / 67.751
P-3a	860103 / Warhead Arming Device (WAD) (Service Life Extension)		B		- / 1.367	- / 0.024	- / 0.024	- / 0.024	- / -	- / 10.029

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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 2020	FY 2021	FY 2022	FY 2023	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	860104 / Rotary Switch (RS) (Reliability & Maintainability)		B		- / 7.786	- / 7.878	- / 8.090	- / 16.243	- / 6.374	- / 53.571
P-3a	860105 / Guided Missile Flight Controller (GFMC) (Reliability & Maintainability)		B		- / 18.781	- / 19.306	- / 19.939	- / 33.492	- / 40.702	- / 151.924
P-40	Total Gross/Weapon System Cost				- / 63.958	- / 74.957	- / 75.279	- / 74.323	- / 47.112	- / 583.646

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

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860103 / Warhead Arming Device (WAD)

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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	8.590	0.000	8.590	1.367	0.024	0.024	0.024	-	10.029
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	8.590	0.000	8.590	1.367	0.024	0.024	0.024	-	10.029
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	8.590	0.000	8.590	1.367	0.024	0.024	0.024	-	10.029

(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 2 components Guided Missile Flight Controller (GFMC), Rotary Switch (RS), and Warhead Arming Device (WAD) into separate efforts. Ref AGM-86B Service Life Extension Program (SLEP-2) modification number 860002 for prior years 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. Up to 24 SLEP WAD kits per year will be delivered to the depot for installation in conjunction with Analytical Condition Inspection (ACI) missiles. The remaining SLEP WAD kits will be delivered to the organizational-level maintenance units for installation via Time Compliance Technical Order (TCTO) 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.

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

In 2015, AFGSC updated requirements to move 14 missiles from attrition reserve to the active fleet. An additional 14 kits will be procured in FY20 to fulfill this requirement.

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

In March 2017, Boeing Guidance and Repair Center (BGRC) recalled 90 WADs due to quality defect for rework. This is a firm fixed price (FFP) contract, no change in contract price. Government has approved BGRC Recovery Plan and deliveries resumed June 2017. Installations delayed until Jul 2017, thereby extending installation completion into FY2023.

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 2019 Air Force										Date: February 2018			
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1				P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)						Modification Number / Title: 860103 / Warhead Arming Device (WAD)			
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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> WAD - Organic													
B Kits													
Recurring													
WAD - Organic:EQUIPMENT Group B (Active)	- / -	- / -	- / -	70 / 6.381	- / -	70 / 6.381	7 / 0.708	- / -	- / -	- / -	- / -	77 / 7.089	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 6.381	- / -	- / 6.381	- / 0.708	- / -	- / -	- / -	- / -	- / 7.089	
<i>Subtotal: WAD - Organic</i>	- / -	- / -	- / -	- / 6.381	- / -	- / 6.381	- / 0.708	- / -	- / -	- / -	- / -	- / 7.089	
<i>Modification Item 2 of 2:</i> WAD Depot													
B Kits													
Recurring													
WAD Depot:EQUIPMENT Group B (Active)	- / -	- / -	- / -	24 / 2.180	- / -	24 / 2.180	6 / 0.630	- / -	- / -	- / -	- / -	30 / 2.810	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 2.180	- / -	- / 2.180	- / 0.630	- / -	- / -	- / -	- / -	- / 2.810	
<i>Subtotal: WAD Depot</i>	- / -	- / -	- / -	- / 2.180	- / -	- / 2.180	- / 0.630	- / -	- / -	- / -	- / -	- / 2.810	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 8.561	- / -	- / 8.561	- / 1.338	- / -	- / -	- / -	- / -	- / 9.899	
Support (All Modification Items)													
PMA - Other Gov't Costs													
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 0.005	- / -	- / 0.005	- / 0.005	- / -	- / -	- / -	- / -	- / 0.010	
Installation													
<i>Modification Item 2 of 2:</i> WAD Depot													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	24 / 0.024	- / -	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	- / -	120 / 0.120	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	8.590	0.000	8.590	1.367	0.024	0.024	0.024	-	10.029	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force						Date: February 2018	
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1			P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)			Modification Number / Title: 860103 / Warhead Arming Device (WAD)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 2: WAD - Organic							
Manufacturer Information							
Manufacturer Name: Boeing				Manufacturer Location: Heath, OH			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 12			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Jun 2020			
Delivery Dates			Jun 2020	Jun 2021			
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 77		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3020F / 03 / 1	P-1 Line Item Number / Title: MALCBG / Air Launch Cruise Missile (ALCM)	Modification Number / Title: 860103 / Warhead Arming Device (WAD)
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ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 2 of 2: WAD Depot

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Heath, OH
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 12

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Jun 2019	Jun 2020			
Delivery Dates			Jun 2020	Jun 2021			

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	- / -	- / -	24 / 0.024	- / -	24 / 0.024	18 / 0.018	- / -	- / -	- / -	- / -	42 / 0.042
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	- / -	- / -	- / -	24 / 0.024
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	- / -	- / -	24 / 0.024
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	- / -	24 / 0.024
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	- / -	6 / 0.006
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	24 / 0.024	- / -	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	- / -	120 / 0.120

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	120
Out	0	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	120

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	0.000	7.200	0.000	7.200	7.786	7.878	8.090	16.243	6.374	53.571
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	0.000	7.200	0.000	7.200	7.786	7.878	8.090	16.243	6.374	53.571
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	0.000	7.200	0.000	7.200	7.786	7.878	8.090	16.243	6.374	53.571

(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 2 components Guided Missile Flight Controller (GFMC), Rotary Switch (RS), and Warhead Arming Device (WAD) into separate efforts. Ref AGM-86B Service Life Extension Program (SLEP-2) modification number 860002 for prior years 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 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-FY26. RS will be done in phases: 1)Remanufacture Plan, 2) Remanufacture Readiness, 3)Production.

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

In 2015, AFGSC updated requirements to move 14 missiles from attrition reserve to the active fleet. An additional 14 kits will be procured in FY24 to fulfill the requirement.

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 2019 Air Force										Date: February 2018			
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 / 1.841	- / -	24 / 1.841	24 / 1.928	24 / 1.948	24 / 2.007	24 / 4.088	24 / 2.069	144 / 13.881	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.841	- / -	- / 1.841	- / 1.928	- / 1.948	- / 2.007	- / 4.088	- / 2.069	- / 13.881	
<i>Subtotal: Rotary Switch-Depot</i>	- / -	- / -	- / -	- / 1.841	- / -	- / 1.841	- / 1.928	- / 1.948	- / 2.007	- / 4.088	- / 2.069	- / 13.881	
<i>Modification Item 2 of 2: Rotary Switch-Org/Intermediate</i>													
B Kits													
Recurring													
Rotary Switch-Org/Intermediate:EQUIPMENT Group B (Active)	- / -	- / -	- / -	70 / 5.354	- / -	70 / 5.354	70 / 5.625	70 / 5.692	70 / 5.846	70 / 11.912	48 / 4.139	398 / 38.568	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 5.354	- / -	- / 5.354	- / 5.625	- / 5.692	- / 5.846	- / 11.912	- / 4.139	- / 38.568	
<i>Subtotal: Rotary Switch-Org/Intermediate</i>	- / -	- / -	- / -	- / 5.354	- / -	- / 5.354	- / 5.625	- / 5.692	- / 5.846	- / 11.912	- / 4.139	- / 38.568	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 7.195	- / -	- / 7.195	- / 7.553	- / 7.640	- / 7.853	- / 16.000	- / 6.208	- / 52.449	
Support (All Modification Items)													
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.005	- / -	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / -	- / 0.025	
A&AS	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.204	- / 0.209	- / 0.208	- / 0.214	- / 0.118	- / 0.953	
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 0.005	- / -	- / 0.005	- / 0.209	- / 0.214	- / 0.213	- / 0.219	- / 0.118	- / 0.978	
Installation													
<i>Modification Item 1 of 2: Rotary Switch-Depot</i>	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	48 / 0.048	144 / 0.144	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	48 / 0.048	144 / 0.144	
Total													
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	7.200	0.000	7.200	7.786	7.878	8.090	16.243	6.374	53.571	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force **Date:** February 2018

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): 12
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Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022
Delivery Dates			Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	- / -	- / -	- / -	- / -	24 / 0.024
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	- / -	- / -	- / -	24 / 0.024
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	- / -	- / -	24 / 0.024
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	- / -	24 / 0.024
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024
Total	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024	24 / 0.024	24 / 0.024	48 / 0.048	144 / 0.144

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	48	144
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	48	144

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Exhibit P-3a, Individual Modification: PB 2019 Air Force						Date: February 2018	
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 (<i>in Months</i>): 0				Production Leadtime (<i>in Months</i>): 12			
Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022
Delivery Dates			Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 398		

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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 (GFMC)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	0.000	19.704	0.000	19.704	18.781	19.306	19.939	33.492	40.702	151.924
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	0.000	19.704	0.000	19.704	18.781	19.306	19.939	33.492	40.702	151.924
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	0.000	19.704	0.000	19.704	18.781	19.306	19.939	33.492	40.702	151.924

(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 2 components Guided Missile Flight Controller (GFMC), Rotary Switch (RS), and Warhead Arming Device (WAD) into separate efforts. Ref AGM-86B Service Life Extension Program (SLEP-2) modification number 860002 for prior years 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 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-FY26. GMFC will be done in three phases: 1)Remanufacture Plan, 2)Remanufacture Readiness, 3)Production.

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

In 2015, AFGSC updated requirements to move 14 missiles from attrition reserve to the active fleet. An additional 14 kits will be procured in FY26 to fulfill the requirement.

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 2019 Air Force										Date: February 2018			
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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: GMFC Depot</i>													
B Kits													
Recurring													
GMFC Depot:EQUIPMENT Group B (Active)	- / -	- / -	- / -	24 / 5.030	- / -	24 / 5.030	24 / 4.794	24 / 4.926	24 / 5.083	24 / 8.551	24 / 13.537	144 / 41.921	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 5.030	- / -	- / 5.030	- / 4.794	- / 4.926	- / 5.083	- / 8.551	- / 13.537	- / 41.921	
<i>Subtotal: GMFC Depot</i>	- / -	- / -	- / -	- / 5.030	- / -	- / 5.030	- / 4.794	- / 4.926	- / 5.083	- / 8.551	- / 13.537	- / 41.921	
<i>Modification Item 2 of 2: GMFC Org/Intermediate</i>													
B Kits													
Recurring													
GMFC Org/Intermediate:EQUIPMENT Group B (Active)	- / -	- / -	- / -	70 / 14.669	- / -	70 / 14.669	70 / 13.982	70 / 14.369	70 / 14.827	70 / 24.912	48 / 27.075	398 / 109.834	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 14.669	- / -	- / 14.669	- / 13.982	- / 14.369	- / 14.827	- / 24.912	- / 27.075	- / 109.834	
<i>Subtotal: GMFC Org/Intermediate</i>	- / -	- / -	- / -	- / 14.669	- / -	- / 14.669	- / 13.982	- / 14.369	- / 14.827	- / 24.912	- / 27.075	- / 109.834	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 19.699	- / -	- / 19.699	- / 18.776	- / 19.295	- / 19.910	- / 33.463	- / 40.612	- / 151.755	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.005	- / -	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / -	- / 0.025	
<i>Subtotal: Support</i>	- / -	- / -	- / 0.000	- / 0.005	- / -	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / -	- / 0.025	
Installation													
<i>Modification Item 1 of 2: GMFC Depot</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	24 / 0.024	24 / 0.024	90 / 0.090	144 / 0.144	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	24 / 0.024	24 / 0.024	90 / 0.090	144 / 0.144	
Total													
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	19.704	0.000	19.704	18.781	19.306	19.939	33.492	40.702	151.924	

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Exhibit P-3a, Individual Modification: PB 2019 Air Force		Date: February 2018
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 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Mar 2020	Apr 2021	Apr 2022	Apr 2023
Delivery Dates				Mar 2021	Apr 2022	Apr 2023	Apr 2024

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	- / -	- / -	24 / 0.024
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	- / -	24 / 0.024
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	18 / 0.018	24 / 0.024
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.024	24 / 0.024
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.006	24 / 0.024	24 / 0.024	90 / 0.090	144 / 0.144

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	90	144
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	90	144

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Exhibit P-3a, Individual Modification: PB 2019 Air Force					Date: February 2018		
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 (GFMC)		
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 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates				Mar 2020	Apr 2021	Apr 2022	Apr 2023
Delivery Dates				Mar 2021	Apr 2022	Apr 2023	Apr 2024
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 398		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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:**
 SDB000 / Small Diameter Bomb

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	15.934	15.349	14.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	45.369
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	15.934	15.349	14.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	45.369
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	15.934	15.349	14.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	45.369

(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:

GBU-39/B: Small Diameter Bomb I (SDB I) is a weapon system that provides fighter and bomber aircraft with a tactically significant standoff attack or direct attack/close air support capability from outside point defenses, against fixed/stationary targets. The SDB I weapon system consists of a 250-pound class weapon, a 4-place common carriage system, logistics support and mission planning module. The FY2018 modifications are to the bomb rack unit (BRU-61/A) carriages. This modification adds capability to operate on 270 volts direct current (VDC) aircraft power in addition to the current configuration of 115 volts alternating current (VAC) capability. This will reduce risk to F-35A integration of SDB I and provide future aircraft loadout options to the inventory carriages. It will also increase weapon loadout by 200% and provide risk reduction for future SDB II integration. The original procurement of BRU-61/As was 2,000. This effort will procure 245 dual power modification kits. The BRU-61/A carriage requirement document is the Combat Air Forces Operational Requirements Document 304-97-C-A for Miniature Munitions and Carriage System dated April 2005.

Funds may be used to resolve production DMS/MS/Obsolescence issues through studies, bridge buys, life of type buys, supplier/parts replacement and qualification activities to preserve future production capabilities and capacities.

Funding for this exhibit contained in PE 0207327F.

Justification:

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

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

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:** 999 / Replen Spares/Repair Parts

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	70.607	101.153	97.481	0.000	97.481	8.441	6.662	8.672	8.903	-	301.919
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	70.607	101.153	97.481	0.000	97.481	8.441	6.662	8.672	8.903	-	301.919
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	70.607	101.153	97.481	0.000	97.481	8.441	6.662	8.672	8.903	-	301.919

(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

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
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: 999 / Replen Spares/Repair Parts
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		

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 2019 Air Force **Date:** February 2018

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:
999 / Replen Spares/Repair Parts

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	Replen Spares/Repair Parts			185 185 439	- / -	- / 70.607	- / 101.153	- / 97.481	- / 0.000	- / 97.481
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 70.607	- / 101.153	- / 97.481	- / 0.000	- / 97.481

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:
 The Missile Initial spares will be used to fill the initial spare parts needed to support the Flight Test Telemetry and Termination Systems (FT3) and the ICBM Cryptography Upgrade (ICU II) programs. The Missile Initial Spares program funds all Minuteman III initial spares. The repair spare parts are needed to support and maintain Minuteman III missile system. Initial spares are needed to support the major sub systems of the weapon systems including the Re-entry System, Re-entry Vehicle, Guidance System, Propulsion System, Launch Facility and Launch Command Center. This includes items such as batteries, ordnance, cables, telemetry packages, and electronic components.

AIM-9/AIM-9X: The Missile Initial Spares program funds 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.

AMRAAM: The 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.

JASSM: The 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.

AGM-88A (HARM): The Missile Replenishment Spares program funds all HARM replenishment spares parts 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.

AGM-65D Maverick: The 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: The Missile Replenishment spares funding supports repair and replacement of Hellfire parts not covered by warranty.

Small Diameter Bomb I (SDB I): The Missile Replenishment Spares program supports procurement of flight termination and telemetry kits to covert GBU-39/B's into SDB I Guided Test Vehicles for the Weapon System Evaluation Program (WSEP).

AGM-86 (ALCM): 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.

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Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2019 Air Force					Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3020F / 04 / 10		P-1 Line Item Number / Title: 999 / Replen Spares/Repair Parts			Title: Replen Spares/Repair Parts		
End Item Line Item Number / Name [MDAP/MAIS]	Prior Years (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 Base (\$ M)	FY 2019 OCO (\$ M)	FY 2019 Total (\$ M)	
Initial							
BA 04 - Spares and Repair Parts							
M09BA1 / AIM-9 Sidewinder	-	4.221	3.479	2.455	0.000	2.455	
MALCBG / Air Launch Cruise Missile (ALCM)	-	0.254	0.304	0.308	0.000	0.308	
MAMRA0 / AMRAAM [185]	-	1.793	2.067	2.023	0.000	2.023	
JASSM0 / JOINT AIR-SURFACE STANDOFF MISSILE	-	0.318	0.424	0.425	0.000	0.425	
M30MLG / MM III MODIFICATIONS	-	5.762	3.136	8.372	0.000	8.372	
M09HAI / Sidewinder (AIM-9X)	-	2.427	2.241	1.800	0.000	1.800	
Subtotal: Initial	-	14.775	11.651	15.383	0.000	15.383	
Replenishment							
BA 04 - Spares and Repair Parts							
M09BAI / AIM-9 Sidewinder	-	5.450	5.541	5.535	0.000	5.535	
M30MLG / Arms Control Implementation	-	0.593	-	0.000	0.000	0.000	
M09HAI / AIM-9X	-	4.080	5.681	5.713	0.000	5.713	
MALCBG / AGM-86 Air Launched Cruise Missile (ALCM)	-	2.796	2.942	2.280	0.000	2.280	
M30MLG / LGM-30 MINUTEMAN (MM III)	-	28.476	54.065	50.201	0.000	50.201	
M88AAG / AGM-88A Tactical AGM Missile (HARM)	-	3.042	8.799	7.675	0.000	7.675	
MAMRA0 / AIM-120 Advanced Medium Range Air to Air Missile (AMRAAM) [185]	-	0.707	0.834	0.839	0.000	0.839	
M65DAG / AGM-65D Maverick	-	1.303	1.537	1.545	0.000	1.545	
PRDTA2 / Predator Hellfire Missile	-	0.253	0.298	0.298	0.000	0.298	
SDB000 / Small Diameter Bomb [439]	-	9.132	9.805	8.012	0.000	8.012	
Subtotal: Replenishment	-	55.832	89.502	82.098	0.000	82.098	
Total Cost (Initial + Replenishment)	-	70.607	101.153	97.481	0.000	97.481	

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3020F: Missile Procurement, Air Force / BA 05: Other Support / BSA 4: Special Programs	P-1 Line Item Number / Title: MSPPRG / Special Update Programs
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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: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
<i>Procurement Quantity (Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gross/Weapon System Cost (\$ in Millions)</i>	-	46.125	44.917	188.539	0.000	188.539	281.752	257.107	560.361	797.962	-	2,176.763
<i>Less PY Advance Procurement (\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Net Procurement (P-1) (\$ in Millions)</i>	-	46.125	44.917	188.539	0.000	188.539	281.752	257.107	560.361	797.962	-	2,176.763
<i>Plus CY Advance Procurement (\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	46.125	44.917	188.539	0.000	188.539	281.752	257.107	560.361	797.962	-	2,176.763

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

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

Description:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

Justification:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

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