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

May 2021



**Air Force**

*Justification Book Volume 2 of 2*

***Aircraft Procurement, Air Force***

**Vol-2 Mods**

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

05 May 2021

Appropriation -----	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
-----	-----	-----	-----
Aircraft Procurement, Air Force	17,550,262	19,985,491	15,727,669
Missile Procurement, Air Force	2,777,558	2,365,953	2,669,811
Space Procurement, Air Force	2,353,383		
Procurement of Ammunition, Air Force	2,535,419	1,336,461	795,168
Procurement, Space Force		2,310,994	2,766,854
Other Procurement, Air Force	25,199,603	23,796,987	25,251,137
Total Department of the Air Force	50,416,225	49,795,886	47,210,639

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05 May 2021

## Appropriation: Aircraft Procurement, Air Force

Budget Activity -----	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
01. Combat Aircraft	6,524,659	7,584,746	5,963,085
02. Airlift Aircraft	3,407,498	3,847,537	2,729,260
03. Trainer Aircraft			10,397
04. Other Aircraft	1,616,357	2,209,274	1,038,926
05. Modification of Inservice Aircraft	3,491,587	3,756,095	3,788,775
06. Aircraft Spares and Repair Parts	763,680	930,899	923,573
07. Aircraft Supt Equipment & Facilities	1,746,481	1,656,940	1,273,653
Total Aircraft Procurement, Air Force	17,550,262	19,985,491	15,727,669

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Department of the Air Force  
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05 May 2021

Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Combat Aircraft									
-----									
Strategic Offensive									
1	B-21 Raider Advance Procurement (CY) C (FY 2022 for FY 2023) (M)							108,027 (108,027)	U
Tactical Forces									
2	F-35 Less: Advance Procurement (PY)	A	62	(5,826,259) (-578,200)	60	(6,177,299) (-570,500)	48	(4,714,804) (-547,200)	U
				5,248,059		5,606,799		4,167,604	
3	F-35 Advance Procurement (CY) C (FY 2020 for FY 2021) (M) C (FY 2020 for FY 2022) (M) C (FY 2021 for FY 2022) (M) C (FY 2021 for FY 2023) (M) C (FY 2022 for FY 2023) (M)			655,500 (570,500) (85,000)		610,800 (462,200) (148,600)		352,632  (352,632)	U
4	F-15e	A	6	621,100	6				U
5	F-15EX Less: Advance Procurement (PY)	A			12	(1,233,647)	12	(1,320,403) (-133,500)	U
						1,233,647		1,186,903	
6	F-15EX Advance Procurement (CY) C (FY 2021 for FY 2022) (M) C (FY 2022 for FY 2023) (M)					133,500 (133,500)		147,919  (147,919)	U
Total Combat Aircraft				6,524,659		7,584,746		5,963,085	

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Appropriation: 3010F Aircraft Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Airlift Aircraft									
-----									
Tactical Airlift									
7	KC-46A MDAP	A	12	2,139,705	15	2,665,299	14	2,380,315	U
Other Airlift									
8	C-130J	A	4	377,156	8	797,131	1	128,896	U
9	MC-130J	A	8	(976,714)	4	(411,107)	3	(266,049)	U
	Less: Advance Procurement (PY)			(-126,077)		(-56,000)		(-46,000)	U
				-----		-----		-----	
				850,637		355,107		220,049	
10	MC-130J								
	Advance Procurement (CY)			40,000		30,000			U
	C (FY 2020 for FY 2021) (M)			(40,000)					
	C (FY 2021 for FY 2022) (M)					(30,000)			
				-----		-----		-----	
Total Airlift Aircraft				3,407,498		3,847,537		2,729,260	
Budget Activity 03: Trainer Aircraft									
-----									
UPT Trainers									
11	Advanced Trainer Replacement T-X	A						10,397	U
				-----		-----		-----	
Total Trainer Aircraft								10,397	
Budget Activity 04: Other Aircraft									
-----									
Helicopters									
12	MH-139A	A			8	194,016			U
13	Combat Rescue Helicopter	A	12	850,535	19	1,083,909	14	792,221	U
14	CV-22 Osprey	A			2	206,220			U

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Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Mission Support Aircraft									
15	C-37A	A	2	159,140					U
16	Civil Air Patrol A/C	A	4	11,000		11,200		2,813	U
Other Aircraft									
17	Target Drones	A	35	130,837	38	133,273	22	116,169	U
18	Compass Call	A	1	114,095		159,867			U
19	E-11 BACN/HAG	A				63,419	2	124,435	U
20	Observation Attack Replacement (OA-X)	A		30,000					U
21	MQ-9	A	24	308,600	16	343,600		3,288	U
22	RQ-20B Puma	A	18	12,150	20	13,770			U
Total Other Aircraft				1,616,357		2,209,274		1,038,926	
Budget Activity 05: Modification of Inservice Aircraft									
Strategic Aircraft									
23	B-2A	A		9,582		30,819		29,944	U
24	B-1B	A		12,659		21,808		30,518	U
25	B-52	A		41,433		27,279		74,957	U
26	Combat Rescue Helicopter	A						61,191	U
27	Large Aircraft Infrared Countermeasures	A		97,093		56,320		57,001	U
Tactical Aircraft									
28	A-10	A		125,788		135,793		83,621	U
29	E-11 BACN/HAG	A		68,027		29,645		68,955	U

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Line No	Item Nomenclature	Ident Code	FY 2020 Actual*		FY 2021 Enacted**		FY 2022 Request		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
30	F-15	A		441,091		203,910		234,340	U	
31	F-16	A		252,109		622,593		613,166	U	
32	F-22A	A		189,047		357,586		424,722	U	
33	F-35 Modifications	A		329,590		295,832		304,135	U	
34	F-15 EPAW	A		125,417			18	149,797	U	
35	Increment 3.2b	A		20,213		5,889			U	
36	KC-46A MDAP	A		5,213		4,085		1,984	U	
Airlift Aircraft										
37	C-5	A		56,326		50,279		25,431	U	
38	C-17A	A		55,916		44,798		59,570	U	
39	C-21	A		216					U	
40	C-32A	A		11,511		2,947		1,949	U	
41	C-37A	A		435		12,985		5,984	U	
Trainer Aircraft										
42	Glider Mods	A		138		977		142	U	
43	T-6	A		11,826		23,929		8,735	U	
44	T-1	A		19,147		4,465		3,872	U	
45	T-38	A		37,341		40,806		49,851	U	
Other Aircraft										
46	U-2 Mods			58,563		120,218		126,809	U	
47	KC-10A (ATCA)	A		2,108		117		1,902	U	

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	
48	C-12	A		3,021					U
49	VC-25A Mod	A		48,624		1,983		96	U
50	C-40	A		256		7,252		262	U
51	C-130	A		186,066		265,580		29,071	U
52	C-130J Mods	A		122,302		136,632		110,784	U
53	C-135	A		113,351		82,350		61,376	U
54	Compass Call	A		110,539		180,983		195,098	U
55	combat flight inspection - CFIN	A		508					U
56	RC-135	A		227,673		191,332		207,596	U
57	E-3	A		102,092		118,068		109,855	U
58	E-4	A		52,977		44,140		19,081	U
59	E-8	A		48,778		22,037		16,312	U
60	Airborne Warning and Cntrl Sys (AWACS) 40/45	A		32,821		53,343		30,327	U
61	Family of Beyond Line-of-Sight Terminals	A		7,910		1,573			U
62	H-1	A		3,817		4,410		1,533	U
63	H-60	A		26,879		34,728		13,709	U
64	RQ-4 Mods	A		1,704		3,350		3,205	U
65	HC/MC-130 Modifications	A		41,820		76,573		150,263	U
66	Other Aircraft	A		50,098		100,774		54,828	U
67	MQ-9 Mods	A		254,414		155,011		144,287	U
68	MQ-9 UAS Payloads	A		19,800		63,500		40,800	U

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	
69	Senior Leader C3, System - Aircraft	A					23,554		U
70	CV-22 Mods	A		65,348		119,396	158,162		U
Total Modification of Inservice Aircraft				3,491,587		3,756,095	3,788,775		
Budget Activity 06: Aircraft Spares and Repair Parts									
-----									
Aircraft Spares and Repair Parts									
71	Initial Spares/Repair Parts	A		763,680		930,899	923,573		U
Total Aircraft Spares and Repair Parts				763,680		930,899	923,573		
Budget Activity 07: Aircraft Supt Equipment & Facilities									
-----									
Common Support Equipment									
72	Aircraft Replacement Support Equip	A		93,212		149,483	138,761		U
Post Production Support									
73	B-2A	A		1,403		1,683	1,651		U
74	B-2B	A		28,900		37,310	38,811		U
75	B-52	A		2,341		1,034	5,602		U
76	C-17A	A		132,634					U
77	RC-135	A		170,075					U
78	F-15	A		2,589		2,632	2,324		U
79	F-16	A		11,402		14,163	10,456		U
80	Other Aircraft	A				4,595			U
81	RQ-4 Post Production Charges	A		47,246		1,750	24,592		U

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Industrial Preparedness									
82	Industrial Responsiveness	A		17,705		18,215		18,110	U
War Consumables									
83	War Consumables	A		32,102		32,046		35,866	U
Other Production Charges									
84	Other Production Charges	A		1,173,314		1,372,337		979,388	U
86	Spectrum Relocation Fund	A		-618					U
999	Classified Programs			34,176		21,692		18,092	U
Total Aircraft Supt Equipment & Facilities				1,746,481		1,656,940		1,273,653	
Total Aircraft Procurement, Air Force				17,550,262		19,985,491		15,727,669	

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

**Lookup Matrix by Model**

<b>Model:</b>	B-2		
<b>Modification P-40a Aggregated Items Title:</b>	B-2A		
<b>Item Number</b>	<b>Item Title</b>		<b>Applies to Multiple Models</b>
<b>Uncategorized</b>			
110032	LINK 16/CID/IFR		No
110043	B-2 Adaptable Communications Suite (ACS)		No
110054	B-2 Flex Strike Phase 1		No
110056	B61-12 Integration		No
110057	MGUE		No
8882	Common Very Low Frequency Terminal		No
99999U	B-2 Low Cost Engine Modifications		No
99999X	Low Cost Modifications		No
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>		<b>Applies to Multiple Models</b>
110031	B-2 Trainer System Upgrade		No
110035	LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS		No

<b>Model:</b>	B-2A		
<b>Modification P-40a Aggregated Items Title:</b>	B-2A		
<b>Item Number</b>	<b>Item Title</b>		<b>Applies to Multiple Models</b>
<b>Uncategorized</b>			
110061	IFF Mode 5/S		No
110062	Crash Survivable Memory Unit (CSMU)		No

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<b>Model:</b>	<b>B-2A</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>B-2A</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
110065	B-2 GBU-57 MOP Integration	No

<b>Model:</b>	<b>B-1B</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>B-1B</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
4291	B-1 TRAINING SUPPORT	No
92294	LAPTOP CONTROLLED TARGETING POD	No
99999X	Low Cost Modifications	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
4280	Fully Integrated Data Links	No
4284	CITS UPGRADE	No
8971	VERTICAL SITUATION DISPLAYS	No

<b>Model:</b>	<b>B-1</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>B-1B</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
92316	Radio Crypto Compliance	No
92317	IFF Mode 5/S	No

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<b>Model:</b>	<b>B-1</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>Other Aircraft</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8674	ATP upgrade Legacy to SE	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
92314	MIDS-JTRS	No
8675	ATP-SE Technology Insertion	Yes

<b>Model:</b>	<b>B-52H</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>B-52</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
3265	B-52 Anti-Skid Replacement	No
6884	B-52 Internal Weapons Bay Upgrade	No
6885	AETC Trainers (B-52)	No
6890	B-52 Radar Modernization	No
6893	GPS-IU Replacement	No
6894	B-52 Crypto Modernization	No
6898	B-52 IR Missile Warning System	No
99999X	Other Mods	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
3310	B-52 Combat Network Communications Technology	No

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<b>Model:</b>	B-52H	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
6889	Bomber Tactical Data link	No
6896	B-52 VLF/LF Modernization	No

<b>Model:</b>	NA	
<b>Modification P-40a Aggregated Items Title:</b>	B-52	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
6891	B-52 WST AR Upgrade Trainer	No

<b>Model:</b>	B-52	
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8674	ATP upgrade Legacy to SE	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
6892	B-52 Low Cost Improvements	No
8675	ATP-SE Technology Insertion	Yes

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<b>Model:</b>	HH-60W	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	Distributed Aperture Infrared Countermeasures	No

<b>Model:</b>	C-130	
<b>Modification P-40a Aggregated Items Title:</b>	Large Aircraft Infrared Countermeasures	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8629C130	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130	No
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
99999M	MISC SIMULATOR UPDATES	No
99999X	Low Cost Modifications	No

<b>Model:</b>	C-5B	
<b>Modification P-40a Aggregated Items Title:</b>	Large Aircraft Infrared Countermeasures	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8629C5	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes
<b>Modification P-40a Aggregated Items Title:</b>	C-5	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		

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<b>Model:</b>	C-5B		
<b>Modification P-40a Aggregated Items Title:</b>	C-5		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
8965	C-5 Fleet Blk Upgrade 01	Yes	

<b>Model:</b>	C-5C		
<b>Modification P-40a Aggregated Items Title:</b>	Large Aircraft Infrared Countermeasures		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8629C5	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes	
<b>Modification P-40a Aggregated Items Title:</b>	C-5		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8965	C-5 Fleet Blk Upgrade 01	Yes	

<b>Model:</b>	C-5M		
<b>Modification P-40a Aggregated Items Title:</b>	Large Aircraft Infrared Countermeasures		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8629C5	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	Yes	
<b>Modification P-40a Aggregated Items Title:</b>	C-5		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8965	C-5 Fleet Blk Upgrade 01	Yes	
8966	C-5 Mission Systems Equipment- Lavatory	No	

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<b>Model:</b>	<b>C-5M</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-5</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
8969	C-5 Training Systems (Training Mods)	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8967	Mission Computer and Weather Radar	No
8968	C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	No

<b>Model:</b>	<b>C-17</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>Large Aircraft Infrared Countermeasures</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8629C17	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17	No
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-17A</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
_2000	Pylon Stub FFLZ, FF, Translating Fairing	No
_2590	ELT Frequency Change	No
_2633	MFOQA	No
1508	IFF GATM	No
2901	Automatic Dependent Surveillance - Broadcast Out (ADS-B Out)	No
6403	Filter Fire Mitigation	No
9740	Fixed Installation Satellite Antenna (FISA)	No
9742	C-17 Simulator Lateral Motion Maneuver Enhancement	No

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<b>Model:</b>	C-17	
<b>Modification P-40a Aggregated Items Title:</b>	C-17A	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
9744	C-17 Visual System Field of View	No
9747	C-17 Training System (Other Mods)	No
99999X	Low Cost Modifications	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
3080	Replacement Heads Up Display (RHUD)	No
9741	Beyond Line of Sight (BLOS)	No

<b>Model:</b>	C-143	
<b>Modification P-40a Aggregated Items Title:</b>	Large Aircraft Infrared Countermeasures	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8629CFIN	LAIRCM CFIN	No

<b>Model:</b>	C130J	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	No

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<b>Model:</b>	<b>A-10C</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>A-10</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
7856	MODE S/5	No	
9832	2ND GIGABIT ETHERNET SWITCH (2GES)	No	
9839	SDB-1	No	
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>	
9831	ARC-210	No	
9834	A-10 High Resolution Display System (HRDS)	No	
9836	3-Dimensional Audio (3DA)	No	

<b>Model:</b>	<b>A-10</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>A-10</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
9804	A-10 Wing Replacement Program	No	
9806	A-10 Helmet Mounted Cueing System	No	
99999X	Low Cost Modifications	No	
<b>Modification P-40a Aggregated Items Title:</b>	<b>Other Aircraft</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8674	ATP upgrade Legacy to SE	Yes	

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<b>Model:</b>	<b>A-10</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
9601	ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	No
8675	ATP-SE Technology Insertion	Yes

<b>Model:</b>	<b>A01000A</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>A-10</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
9816	A-10 Conversion Fuel Tanks	No

<b>Model:</b>	<b>E-11A</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	E-11 Mods	No

<b>Model:</b>	<b>F-15C</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>F-15</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
1203	F-15 C/D Secondary Power System (SPS)	Yes
1205	:Advanced Display Core Processor, ADCP II-C	Yes
1206	F-15C Infrared Search and Track (IRST)	Yes
1209	F-15 C/D Flight Data Recorder (FDR)	Yes

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<b>Model:</b>	<b>F-15C</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>F-15</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
6158	F-15C/D APG-63(V)3 radar upgrade	Yes
8754	F-15C/D IFF Mode 5	Yes
8755	F-15E IFF MODE 5	Yes
8756	F-15C/D Link 16 Cryptographic Modernization	Yes
8794	F-15C/D Beyond Line Of Sight Communications	No
8797	F-15C Passive Attack Sensor System	No
8798	5th to 4th Gen Gateway	Yes
8799	F-15C MIDS JTRS	No
8815	F-15C Simulator Upgrade	No
8816	F-15C/D APG-63(V)3 Common Config	Yes
99999X	Low Cost Modifications	Yes
<b>Modification P-40a Aggregated Items Title:</b>	<b>Other Aircraft</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8674	ATP upgrade Legacy to SE	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8801	F-15 C/D SLEP Longerons	Yes
8675	ATP-SE Technology Insertion	Yes

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<b>Model:</b>	F-15D	
<b>Modification P-40a Aggregated Items Title:</b>	F-15	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
1203	F-15 C/D Secondary Power System (SPS)	Yes
1205	:Advanced Display Core Processor, ADCP II-C	Yes
1206	F-15C Infrared Search and Track (IRST)	Yes
1209	F-15 C/D Flight Data Recorder (FDR)	Yes
6158	F-15C/D APG-63(V)3 radar upgrade	Yes
8754	F-15C/D IFF Mode 5	Yes
8755	F-15E IFF MODE 5	Yes
8756	F-15C/D Link 16 Cryptographic Modernization	Yes
8798	5th to 4th Gen Gateway	Yes
8816	F-15C/D APG-63(V)3 Common Config	Yes
99999X	Low Cost Modifications	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8801	F-15 C/D SLEP Longerons	Yes

<b>Model:</b>	F-15E	
<b>Modification P-40a Aggregated Items Title:</b>	F-15	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
1210	F-15E Flight Data Recorder (FDR)	No
8353	F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM	No

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<b>Model:</b>	F-15E	
<b>Modification P-40a Aggregated Items Title:</b>	F-15	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
8755	F-15E IFF MODE 5	Yes
8756	F-15C/D Link 16 Cryptographic Modernization	Yes
8810	F-15E APG-82(V)1 Common Config	No
8811	F-15E SATCOM UON	No
8813	F-15E B61 A/C Umbilical	No
99999U	LOW COST RETROFIT MODS	No
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8674	ATP upgrade Legacy to SE	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1202	F-15E Radar Modernization Program APG-82(V)1	No
1	Advanced Display Core Processor, ADCP II-E	No
8800	F-15E MIDS JTRS	No
8804	F-15 F-15 E/MUOS	No
8817	F-15E DTM II	No
8820	F-15E Digital Color Display	No
8796	EPAWSS F-15E	No
8675	ATP-SE Technology Insertion	Yes

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<b>Model:</b>	F15CD		
<b>Modification P-40a Aggregated Items Title:</b>	F-15		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8806	F-15 C/D Cabin Pressure Indicator	No	

<b>Model:</b>	F15E		
<b>Modification P-40a Aggregated Items Title:</b>	F-15		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
8807	F-15 E Cabin Pressure Indicator	No	

<b>Model:</b>	F-15A		
<b>Modification P-40a Aggregated Items Title:</b>	F-15		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
99999X	Low Cost Modifications	Yes	

<b>Model:</b>	F-15B		
<b>Modification P-40a Aggregated Items Title:</b>	F-15		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
99999X	Low Cost Modifications	Yes	

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<b>Model:</b>	F-16	
<b>Modification P-40a Aggregated Items Title:</b>	F-16	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
633030	Aggressors Update	No
633041	Anti Jam	No
633042	Missile Warning Systems	No
661652	Link 16 Crypto	No
661653	MIDS-JTRS	No
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
866251	Full Combat Mission Training	No
99999X	Low Cost Modifications	No
<b>Modification P-40a Aggregated Items Title:</b>	<b>Other Aircraft</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8669	Full Combat Mission Training	No
8674	ATP upgrade Legacy to SE	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
602148	MMC and Display Generator Upgrade	No
602600	F-16 LEGACY STRUCTURAL SLEP	No
618250	Comm Suite Upgrade	No
633031	HFLCC AGCAS	No
633032	AIFF MODE 5	No

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<b>Model:</b>	F-16	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
694050	AESA Radars	No
704050	Digital Radar Warning Receiver (RWR)	No
866250	F-16 TRAINING SYSTEMS	No
8675	ATP-SE Technology Insertion	Yes

<b>Model:</b>	F-22	
<b>Modification P-40a Aggregated Items Title:</b>	F-22A	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
F22014	F119 Engine Modifications	No
F22022	Structures Retrofit Plan	No
F22027	Crypto Modernization	No
F22030	Mode 5 Identification Friend or Foe (IFF)	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	Reliability and Maintainability Program	No
2	Link 16	No
3	Trainers Modernization	No
4	Sensor Enhancement	No
11100	INCREMENT 3.2B	No

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<b>Model:</b>	<b>F-35A</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	Block 3i LRIP 2-5 Upgrade	No
2	Block 3F LRIP 2-5 Upgrade	No
3	Block 3F LRIP 6-8 Upgrade	No
4	Concurrency	No
5	Correction of Deficiencies	No
6	Block 4 Modifications	No

<b>Model:</b>	<b>C-37</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-37A</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
1117	WIDEBAND SATCOM	No
1118	CNS/ATM Compliance	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1122	SAT 906	No
2	C-37 - SLC3SA	No

<b>Model:</b>	<b>C-37A</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-37A</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		

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<b>Model:</b>	<b>C-37A</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-37A</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
99999S	SERVICE BULLETINS	Yes	
99999X	Low Cost Modifications	Yes	

<b>Model:</b>	<b>C-37B</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-37A</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
99999S	SERVICE BULLETINS	Yes	
99999X	Low Cost Modifications	Yes	

<b>Model:</b>	<b>T-6A</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>T-6</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
9871	T-6A Crash Survivable Recorder	No	
9873	Canopy Fracture Initiation System	No	
9877	Avionics Upgrades FAA Compliance	No	
9878	Aircrew Training Device (ATD) Modernization	No	
9893	Crew System Modernization Program	No	
99999S	SERVICE BULLETINS	No	
99999X	Low Cost Modifications	No	

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<b>Model:</b>	T-6	
<b>Modification P-40a Aggregated Items Title:</b>	T-6	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
9892	Reliability & Maintainability (R&M) Safety Mods	No

<b>Model:</b>	T-38	
<b>Modification P-40a Aggregated Items Title:</b>	T-38	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
6090	T-38 Avionics	No
6092	T-38 A/B ADS-B Out	No
6094	T-38A/B ESUP II	No
99999A	LOW COST SAFETY MODIFICATIONS	No
99999X	Low Cost Modifications	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
6088	Pacer Classic III	No
6091	Talon Repair, Inspection and Maintenance	No

<b>Model:</b>	T03800	
<b>Modification P-40a Aggregated Items Title:</b>	T-38	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		

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<b>Model:</b>	T03800		
<b>Modification P-40a Aggregated Items Title:</b>	T-38		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
6093	T-38 Canopy	No	

<b>Model:</b>	U-2		
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>	
4494	U-2 Mod	No	
4496	ASARS-2B Procurement for U-2	No	

<b>Model:</b>	C-130H		
<b>Modification P-40a Aggregated Items Title:</b>	C-130		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
3773	C-130 8-Bladed Propeller Upgrade	No	
8221	C-130 ALR-69A Radar Warning Receiver (RWR)	No	
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes	
9139	MOD V IFF	No	
9149	C-130 Aux Hyd Pump	Yes	
92302	C-130H Avionics Modernization Program (AMP) Increment 1	No	
92308	T-56 3.5 Engine Mod	No	
92311	Electronic Propeller Control System (EPCS)	No	
92312	In-Flight Propeller Balancing System (IPBS)	No	
92315	C-130H Simulator	No	

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<b>Model:</b>	C-130H	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
92322	MAFFS	No
99999A	LOW COST SAFETY MODIFICATIONS	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8518	C-130H Avionics Modernization Program (AMP) Increment 2	No

<b>Model:</b>	MC-130H	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes
9149	C-130 Aux Hyd Pump	Yes
92316	AFSOC C-130 Mods	No

<b>Model:</b>	HC-130P	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

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<b>Model:</b>	<b>HC-130N</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-130</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

<b>Model:</b>	<b>EC-130H</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-130</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes
<b>Modification P-40a Aggregated Items Title:</b>	<b>Compass Call</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
1001	COMPASS CALL	No

<b>Model:</b>	<b>AC-130U</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-130</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8578	C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	Yes

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<b>Model:</b>	No text provided.	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
9141	C-130 CRASHWORTHY LOADMASTER SEAT	No
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8736	Counterdrug USSOUTHCOM Support	No

<b>Model:</b>	MC-130W	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
9149	C-130 Aux Hyd Pump	Yes

<b>Model:</b>	HC-130H	
<b>Modification P-40a Aggregated Items Title:</b>	C-130	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
92309	Onboard Fire Incident Response Equipment	No

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<b>Model:</b>	HC-130		
<b>Modification P-40a Aggregated Items Title:</b>	C-130		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
92310	HC-130P/N Variable Speed Drogue (VSD)	No	
99999C	HC-130 Low Cost Mods	No	

<b>Model:</b>	C-130J		
<b>Modification P-40a Aggregated Items Title:</b>	C-130J Mods		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
_2612	Avionics System and Structural Modifications	No	
_5296	Wind Gust Brake	No	
8668	WST Threat Generators	No	
99999X	Low Cost Modifications	No	
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>	
5222	BLOCK 8.1	No	
8646	C-130J Center Wing Replacement	No	

<b>Model:</b>	KC-135		
<b>Modification P-40a Aggregated Items Title:</b>	C-135		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
9818	VOR/ILS ANTENNAE	No	

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<b>Model:</b>	<b>KC-135</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>C-135</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
9824	ADS-B	No
9827	KC-135 AERO-I SATCOM replacement	No
9828	Real Time in the Cockpit (RTIC)	No
99999A	LOW COST SAFETY MODIFICATIONS	No
99999X	Low Cost Modifications	No
<b>Modification P-40a Aggregated Items Title:</b>	<b>Other Aircraft</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8670	MAF Training	No
8735	DAS000 (ROBE)	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8653	BLOCK 45	No
9826	Rudder Position Indicator (RPI)	No

<b>Model:</b>	<b>EC-37B</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1003	COMPASS CALL Baseline Modifications	No

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<b>Model:</b>	WC-135R	
<b>Modification P-40a Aggregated Items Title:</b>	RC-135	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
4266	CONSTANT PHOENIX	No

<b>Model:</b>	RC-135S	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
2504	COBRA BALL	Yes

<b>Model:</b>	TC-135W	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
2504	COBRA BALL	Yes
4263	RIVET JOINT	Yes

<b>Model:</b>	RC-135V	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
4263	RIVET JOINT	Yes

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<b>Model:</b>	RC-135W	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
4263	RIVET JOINT	Yes

<b>Model:</b>	RC-135U	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
4265	COMBAT SENT	No

<b>Model:</b>	E-3	
<b>Modification P-40a Aggregated Items Title:</b>	E-3	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
50001T	BLOCK 40/45 UPGRADE	No
7225	NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF)	No
8662	AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	No
9707	RM&A Mod	No
9716	VERTICAL STABILIZER AND RUDDER	No
99999XA	LOW COST MOD - AIRFRAME	No
99999XB	LOW COST MOD - AVIONICS & MISSION SYSTEMS	No
99999XC	Low Cost Mod - Communications	No
99999XD	Low Cost Mod - Human Systems	No

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<b>Model:</b>	E-3	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
50002	Communication Networking Upgrade (CNU)	No
9718	IP-enabled Capability (IPEC)	No
9721	AWACS Communications Integration Program (ACIP)	No
1	BLOCK 40/45 BLOCK UPGRADE	No

<b>Model:</b>	E-3B	
<b>Modification P-40a Aggregated Items Title:</b>	E-3	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
50002T	AWACS Mode 5 Acceleration	Yes
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
9709	E-3 DRAGON	Yes

<b>Model:</b>	E-3C	
<b>Modification P-40a Aggregated Items Title:</b>	E-3	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
50002T	AWACS Mode 5 Acceleration	Yes

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<b>Model:</b>	E-3C	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
9709	E-3 DRAGON	Yes

<b>Model:</b>	E-4B	
<b>Modification P-40a Aggregated Items Title:</b>	E-4	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
3410	NPES (NC2AIS) E-4B	No
3411	Survivable SHF	No
4406A	SHF Modernization	No
4409	Low Frequency Transmit System (LFTS)	No
9709F	CNS/ATM(ADS-B OUT)	No
99999S	SERVICE BULLETINS	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
1	AEHF Compatible Terminal/PNVC	No

<b>Model:</b>	E-4	
<b>Modification P-40a Aggregated Items Title:</b>	E-4	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
4380	MUOS	No

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<b>Model:</b>	E-4	
<b>Modification P-40a Aggregated Items Title:</b>	E-4	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
99999X	Low Cost Modifications	No

<b>Model:</b>	E-8C	
<b>Modification P-40a Aggregated Items Title:</b>	E-8	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
38203	Distributed Mission Ops Center (DMOC)	No
38207	JSTARS Re-engining	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
38202	Common Data Link	No
38206	SATCOM/MUOS Radios	No

<b>Model:</b>	E-8	
<b>Modification P-40a Aggregated Items Title:</b>	E-8	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
38204	JSTARS OCO Requirements	No

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<b>Model:</b>	HH-60G	
<b>Modification P-40a Aggregated Items Title:</b>	H-60	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8564	Control Display Unit (CDU)	No
8565	Navigation System Upgrade (NSU)	No
8844	Multi-function Color Display	No
8850	MODE 5	No
8852	CSAR Avionics/Electrical Upgrade	No
8854	HH-60 OLR Mission Modifications	No
8856	Block 162	No
8859	DVE Sensor	No
8861	HH-60 DATALINKS	No
8862	HH-60G Communication Suite Control Integration	No
99999X	Low Cost Modifications	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8853	DEFENSIVE SYSTEM UPGRADE	No

<b>Model:</b>	RQ-4	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
470001	GH Aircraft Mods	No
470003	GH Ground Station Mods	No
470009	ASIP Increment I	No

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<b>Model:</b>	<b>RQ-4</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
470010	SAR	No
470011	ASIP Install/Calibration	No
470012	MODE 5/ADS-B	No
470013	Sensor Enhancements	No
470019	Communication Interoperability/Enhancements	No

<b>Model:</b>	<b>HCMCAC-130J</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>HC/MC-130 Modifications</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8761	MC/AC-Communications Modernization Phase I	No

<b>Model:</b>	<b>MC-130J</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>HC/MC-130 Modifications</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
99999Y	MC-Low Cost Modifications	No
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
5222	HC/MC-130J Block 8.1	Yes
8632	MC-130J Increment 2	No
8642	(AbMN) Airborne Mission Networking	No

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<b>Model:</b>	<b>MC-130J</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8648	ADS-B out Acceleration	No
8659	Broadband Antenna	No
8762	MC-130J Link 16	No
8764	Trainer Modifications	No
1	HC- Low Cost Modifications	Yes

<b>Model:</b>	<b>HC-130J</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
5222	HC/MC-130J Block 8.1	Yes
8634	HC-130J Common Configuration	No
8635	HC-130J Personnel Locator System	No
8636	HC-130J Situational Awareness	No
8639	Wireless Intercom	No
8652	(RFCM) Radio Frequency Countermeasures	No
8658	Paratroop Door	No
1	HC- Low Cost Modifications	Yes

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<b>Model:</b>	AC-130J	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
5222	HC/MC-130J Block 8.1	Yes

<b>Model:</b>	KC-46A	
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
8735	DAS000 (ROBE)	Yes

<b>Model:</b>	E-9	
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
99999J	MISCELLANEOUS LOW COSTS MODS (Combat Developments)	No

<b>Model:</b>	HH-60U	
<b>Modification P-40a Aggregated Items Title:</b>	Other Aircraft	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
HH-60U	HH-60U	No

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<b>Model:</b>	<b>MULTI</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
8733	Battlefield ABN Comm Node (BACN)	No

<b>Model:</b>	<b>MQ-9</b>	
<b>P-3a Individual Modifications</b>		
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>
9151	Block 5	No
9152	MQ-9 Field	No
9154	Lynx SAR	No
9155	GCS Blk 30	No
9159	R&M enhancements	No
9164	Extended Range MQ-9	No
9167	MQ-9 Upgrade	No
1	MQ-9 Low Cost Mods	No
9169	Gorgon Stare	No

<b>Model:</b>	<b>C-40B</b>	
<b>Modification P-40a Aggregated Items Title:</b>	<b>Senior Leader C3, System - Aircraft</b>	
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>
<b>Uncategorized</b>		
C-40 - SLC3SA	C-40 - SLC3SA	Yes

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<b>Model:</b>	<b>C</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>Senior Leader C3, System - Aircraft</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
C-40 - SLC3SA	C-40 - SLC3SA	Yes	

<b>Model:</b>	<b>VC-25A</b>		
<b>Modification P-40a Aggregated Items Title:</b>	<b>Senior Leader C3, System - Aircraft</b>		
<b>Item Number</b>	<b>Item Title</b>	<b>Applies to Multiple Models</b>	
<b>Uncategorized</b>			
VC-25A - SLC3SA	VC-25A - SLC3SA	No	

<b>Model:</b>	<b>C-32A</b>		
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>	
1	C-32 - SLC3SA	No	

<b>Model:</b>	<b>CV-22</b>		
<b>P-3a Individual Modifications</b>			
<b>Modification Number</b>	<b>Modification Title</b>	<b>Applies to Multiple Models</b>	
8790	Block 20 Upgrade	No	
1	Low Cost Modifications	No	

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**Funding (\$ M)**

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
<b>Exhibit P-40a</b>										
LINK 16/CID/IFR	4.903	0.200	0.203	0.203	-	0.203	-	-	-	-
B-2 Adaptable Communications Suite (ACS)	23.422	0.296	0.300	0.300	-	0.300	-	-	-	-
B-2 Flex Strike Phase 1	23.730	4.894	2.172	-	-	-	-	-	-	-
B61-12 Integration	39.549	-	-	-	-	-	-	-	-	-
MGUE	21.156	0.990	1.096	0.314	-	0.314	-	-	-	-
IFF Mode 5/S	-	-	-	2.843	-	2.843	-	-	-	-
Crash Survivable Memory Unit (CSMU)	-	-	-	1.568	-	1.568	-	-	-	-
B-2 GBU-57 MOP Integration	21.494	-	-	-	-	-	-	-	-	-
Common Very Low Frequency Terminal	58.760	2.376	-	-	-	-	-	-	-	-
B-2 Low Cost Engine Modifications	18.186	0.236	0.749	0.917	-	0.917	-	-	-	-
Low Cost Modifications	19.878	0.314	0.640	0.837	-	0.837	-	-	-	-
B-1 TRAINING SUPPORT	3.879	0.458	0.575	0.071	-	0.071	-	-	-	-
LAPTOP CONTROLLED TARGETING POD	87.969	1.594	-	-	-	-	-	-	-	-
Radio Crypto Compliance	-	-	0.493	3.112	-	3.112	-	-	-	-
IFF Mode 5/S	0.796	5.953	5.994	0.000	-	0.000	-	-	-	-
Low Cost Modifications	5.637	0.249	-	0.100	-	0.100	-	-	-	-
B-52 Anti-Skid Replacement	21.374	0.932	0.948	-	-	-	-	-	-	-
B-52 Internal Weapons Bay Upgrade	77.119	0.000	-	-	-	-	-	-	-	-
AETC Trainers (B-52)	11.940	2.524	0.226	0.389	-	0.389	-	-	-	-
B-52 Radar Modernization	-	-	-	0.000	-	0.000	-	-	-	-

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Modification P-40a Item Title P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
B-52 WST AR Upgrade Trainer	-	0.855	-	-	-	-	-	-	-	-
GPS-IU Replacement	-	6.730	12.014	-	-	-	-	-	-	-
B-52 Crypto Modernization	-	-	-	3.452	-	3.452	-	-	-	-
B-52 IR Missile Warning System	16.400	-	-	-	-	-	-	-	-	-
Other Mods	17.796	3.969	0.470	0.476	-	0.476	-	-	-	-
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130	15.685	-	-	-	-	-	-	-	-	-
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5	44.896	8.177	-	-	-	-	-	-	-	-
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17	214.894	35.581	9.999	0.000	-	0.000	-	-	-	-
LAIRCM CFIN	-	-	7.500	-	-	-	-	-	-	-
MODE S/5	14.520	0.000	0.980	-	-	-	-	-	-	-
A-10 Wing Replacement Program	268.306	93.755	99.863	0.044	-	0.044	-	-	-	-
A-10 Helmet Mounted Cueing System	0.890	1.170	1.300	3.004	-	3.004	-	-	-	-
A-10 Conversion Fuel Tanks	8.700	-	-	-	-	-	-	-	-	-
2ND GIGABIT ETHERNET SWITCH (2GES)	-	5.000	4.800	2.900	-	2.900	-	-	-	-
SDB-1	-	8.000	-	4.400	-	4.400	-	-	-	-
Low Cost Modifications	-	-	-	2.000	-	2.000	-	-	-	-
F-15 C/D Secondary Power System (SPS)	7.492	-	-	-	-	-	-	-	-	-
:Advanced Display Core Processor, ADCP II-C	107.349	72.094	-	0.000	-	0.000	-	-	-	-
F-15C Infrared Search and Track (IRST)	125.545	0.000	0.000	0.000	-	0.000	-	-	-	-
F-15 C/D Flight Data Recorder (FDR)	24.828	-	-	-	-	-	-	-	-	-
F-15E Flight Data Recorder (FDR)	142.473	-	-	-	-	-	-	-	-	-

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Modification P-40a Item Title P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
F-15C/D APG-63(V)3 radar upgrade	1,341.961	14.678	-	-	-	-	-	-	-	-
F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM	104.524	-	-	-	-	-	-	-	-	-
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	6.796	1.147	0.103	0.181	-	0.181	-	-	-	-
F-15C/D IFF Mode 5	24.909	26.624	-	-	-	-	-	-	-	-
F-15E IFF MODE 5	53.711	7.627	2.080	0.177	-	0.177	-	-	-	-
F-15C/D Link 16 Cryptographic Modernization	0.002	-	-	-	-	-	-	-	-	-
F-15C/D Beyond Line Of Sight Communications	54.428	-	-	-	-	-	-	-	-	-
F-15C Passive Attack Sensor System	28.577	-	-	-	-	-	-	-	-	-
5th to 4th Gen Gateway	3.698	-	-	-	-	-	-	-	-	-
F-15C MIDS JTRS	26.700	41.640	-	-	-	-	-	-	-	-
F-15 C/D Cabin Pressure Indicator	2.773	-	-	-	-	-	-	-	-	-
F-15 E Cabin Pressure Indicator	15.893	-	-	-	-	-	-	-	-	-
F-15E APG-82(V)1 Common Config	35.097	14.706	12.000	4.954	-	4.954	-	-	-	-
F-15E SATCOM UON	17.700	-	-	-	-	-	-	-	-	-
F-15E B61 A/C Umbilical	0.542	-	-	-	-	-	-	-	-	-
F-15C Simulator Upgrade	15.000	-	-	-	-	-	-	-	-	-
F-15C/D APG-63(V)3 Common Config	4.326	0.971	0.338	0.896	-	0.896	-	-	-	-
LOW COST RETROFIT MODS	7.266	0.001	0.001	-	-	-	-	-	-	-
Low Cost Modifications	5.789	0.001	-	0.001	-	0.001	-	-	-	-
Aggressors Update	9.360	0.000	3.131	0.000	0.000	0.000	-	-	-	-
Anti Jam	5.000	-	-	-	-	-	-	-	-	-
Missile Warning Systems	12.000	-	-	-	-	-	-	-	-	-

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Link 16 Crypto	0.139	-	-	-	-	-	-	-	-	-
MIDS-JTRS	237.644	0.269	33.093	0.000	-	0.000	-	-	-	-
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	112.272	5.431	0.487	0.840	-	0.840	-	-	-	-
Full Combat Mission Training	3.128	0.000	-	0.000	-	0.000	-	-	-	-
Low Cost Modifications	11.750	0.010	0.010	0.146	-	0.146	-	-	-	-
F119 Engine Modifications	83.024	4.847	4.861	4.981	-	4.981	-	-	-	-
Structures Retrofit Plan	275.192	0.000	-	-	-	-	-	-	-	-
Crypto Modernization	12.220	4.259	2.854	-	-	-	-	-	-	-
Mode 5 Identification Friend or Foe (IFF)	48.596	-	-	0.000	-	0.000	-	-	-	-
C-5 Fleet Blk Upgrade 01	13.093	-	-	-	-	-	-	-	-	-
C-5 Mission Systems Equipment- Lavatory	20.404	8.742	12.866	0.638	-	0.638	-	-	-	-
C-5 Training Systems (Training Mods)	-	-	-	7.848	-	7.848	-	-	-	-
Pylon Stub FFLZ, FF, Translating Fairing	94.544	-	0.948	0.627	-	0.627	-	-	-	-
ELT Frequency Change	5.182	-	-	-	-	-	-	-	-	-
MFOQA	14.070	-	-	-	-	-	-	-	-	-
IFF GATM	124.543	-	0.050	-	-	-	-	-	-	-
Automatic Dependent Surveillance - Broadcast Out (ADS- B Out)	83.887	-	-	-	-	-	-	-	-	-
Filter Fire Mitigation	-	1.870	-	1.780	-	1.780	-	-	-	-
Fixed Installation Satellite Antenna (FISA)	7.079	-	0.000	-	-	-	-	-	-	-
C-17 Simulator Lateral Motion Maneuver Enhancement	1.438	-	-	-	-	-	-	-	-	-
C-17 Visual System Field of View	1.008	-	-	-	-	-	-	-	-	-
C-17 Training System (Other Mods)	3.739	0.860	7.728	9.585	-	9.585	-	-	-	-

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Low Cost Modifications	3.246	3.617	1.106	0.100	-	0.100	-	-	-	-
WIDEBAND SATCOM	-	-	12.985	-	-	-	-	-	-	-
CNS/ATM Compliance	17.606	-	-	-	-	-	-	-	-	-
SERVICE BULLETINS	-	0.100	-	-	-	-	-	-	-	-
Low Cost Modifications	0.449	0.335	-	-	-	-	-	-	-	-
T-6A Crash Survivable Recorder	-	-	18.865	4.342	-	4.342	-	-	-	-
Canopy Fracture Initiation System	1.131	-	-	-	-	-	-	-	-	-
Avionics Upgrades FAA Compliance	22.974	6.225	-	-	-	-	-	-	-	-
Aircrew Training Device (ATD) Modernization	37.541	3.601	3.093	3.193	-	3.193	-	-	-	-
Reliability & Maintainability (R&M) Safety Mods	-	0.100	0.071	0.100	-	0.100	-	-	-	-
Crew System Modernization Program	30.600	0.100	0.100	0.100	-	0.100	-	-	-	-
SERVICE BULLETINS	-	0.100	0.100	0.100	-	0.100	-	-	-	-
Low Cost Modifications	3.232	1.700	1.700	0.900	-	0.900	-	-	-	-
T-38 Avionics	96.247	0.769	-	1.554	-	1.554	-	-	-	-
T-38 A/B ADS-B Out	8.269	-	-	-	-	-	-	-	-	-
T-38 Canopy	0.000	0.237	1.573	1.543	-	1.543	-	-	-	-
T-38A/B ESUP II	-	-	5.000	-	-	-	-	-	-	-
LOW COST SAFETY MODIFICATIONS	0.039	0.005	0.005	0.005	-	0.005	-	-	-	-
Low Cost Modifications	0.043	0.006	0.006	0.006	-	0.006	-	-	-	-
C-130 8-Bladed Propeller Upgrade	196.004	55.000	180.000	-	-	-	-	-	-	-
C-130 ALR-69A Radar Warning Receiver (RWR)	36.000	-	-	-	-	-	-	-	-	-
C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION)	673.495	14.512	-	0.000	-	0.000	-	-	-	-

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Modification P-40a Item Title P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
MOD V IFF	42.100	-	-	-	-	-	-	-	-	-
C-130 CRASHWORTHY LOADMASTER SEAT	1.853	-	-	-	-	-	-	-	-	-
C-130 Aux Hyd Pump	16.599	-	-	-	-	-	-	-	-	-
C-130H Avionics Modernization Program (AMP) Increment 1	83.943	7.185	-	0.000	-	0.000	-	-	-	-
T-56 3.5 Engine Mod	261.000	79.000	79.000	-	-	-	-	-	-	-
Onboard Fire Incident Response Equipment	144.429	5.538	-	0.100	-	0.100	-	-	-	-
HC-130P/N Variable Speed Drogue (VSD)	1.410	-	-	-	-	-	-	-	-	-
Electronic Propeller Control System (EPCS)	141.770	-	-	-	-	-	-	-	-	-
In-Flight Propeller Balancing System (IPBS)	1.500	-	-	-	-	-	-	-	-	-
C-130H Simulator	25.000	15.675	-	7.128	-	7.128	-	-	-	-
AFSOC C-130 Mods	14.705	7.937	-	-	-	-	-	-	-	-
MAFFS	-	-	4.600	-	-	-	-	-	-	-
LOW COST SAFETY MODIFICATIONS	3.034	-	-	-	-	-	-	-	-	-
HC-130 Low Cost Mods	1.907	-	-	-	-	-	-	-	-	-
MISC SIMULATOR UPDATES	0.703	-	-	-	-	-	-	-	-	-
Low Cost Modifications	11.648	1.219	1.980	1.839	-	1.839	-	-	-	-
Avionics System and Structural Modifications	27.628	4.990	0.750	0.200	-	0.200	-	-	-	-
Wind Gust Brake	39.849	-	-	-	-	-	-	-	-	-
WST Threat Generators	0.796	-	5.948	-	-	-	-	-	-	-
Low Cost Modifications	10.210	0.650	0.750	0.200	-	0.200	-	-	-	-
VOR/ILS ANTENNAE	9.285	0.001	0.001	0.001	-	0.001	-	-	-	-
ADS-B	14.019	-	-	-	-	-	-	-	-	-

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KC-135 AERO-I SATCOM replacement	0.000	28.581	16.274	1.782	-	1.782	-	-	-	-
Real Time in the Cockpit (RTIC)	26.200	18.200	0.000	0.000	-	0.000	-	-	-	-
LOW COST SAFETY MODIFICATIONS	0.025	0.025	0.025	0.025	-	0.025	-	-	-	-
Low Cost Modifications	13.479	0.995	1.995	1.995	-	1.995	-	-	-	-
COMPASS CALL	36.366	-	11.300	-	-	-	-	-	-	-
CONSTANT PHOENIX	208.290	7.937	-	-	-	-	-	-	-	-
BLOCK 40/45 UPGRADE	658.246	-	-	0.000	-	0.000	-	-	-	-
AWACS Mode 5 Acceleration	-	1.907	0.823	1.132	-	1.132	-	-	-	-
NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF)	56.833	-	-	-	-	-	-	-	-	-
AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS	8.406	0.719	0.700	0.700	-	0.700	-	-	-	-
RM&A Mod	22.294	0.328	0.320	-	-	-	-	-	-	-
VERTICAL STABILIZER AND RUDDER	1.816	-	-	-	-	-	-	-	-	-
LOW COST MOD - AIRFRAME	4.448	1.999	1.999	0.999	-	0.999	-	-	-	-
LOW COST MOD - AVIONICS & MISSION SYSTEMS	4.448	1.999	1.999	0.999	-	0.999	-	-	-	-
Low Cost Mod - Communications	-	-	1.999	0.999	-	0.999	-	-	-	-
Low Cost Mod - Human Systems	-	-	1.999	0.999	-	0.999	-	-	-	-
NPES (NC2AIS) E-4B	2.730	-	-	-	-	-	-	-	-	-
Survivable SHF	-	-	0.045	1.556	-	1.556	-	-	-	-
MUOS	0.000	3.307	0.233	4.559	-	4.559	-	-	-	-
SHF Modernization	120.088	-	-	-	-	-	-	-	-	-
Low Frequency Transmit System (LFTS)	78.235	34.248	20.018	-	-	-	-	-	-	-
CNS/ATM(ADS-B OUT)	9.978	0.000	-	-	-	-	-	-	-	-

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SERVICE BULLETINS	12.864	0.067	5.719	1.186	-	1.186	-	-	-	-
Low Cost Modifications	12.340	1.990	1.990	1.990	-	1.990	-	-	-	-
Distributed Mission Ops Center (DMOC)	-	4.029	-	-	-	-	-	-	-	-
JSTARS OCO Requirements	13.000	-	-	-	-	-	-	-	-	-
JSTARS Re-engining	-	20.000	-	-	-	-	-	-	-	-
Control Display Unit (CDU)	31.744	-	-	-	-	-	-	-	-	-
Navigation System Upgrade (NSU)	65.492	1.298	1.310	-	-	-	-	-	-	-
Multi-function Color Display	43.301	2.610	4.210	1.600	-	1.600	-	-	-	-
MODE 5	32.262	2.148	3.624	0.310	-	0.310	-	-	-	-
CSAR Avionics/Electrical Upgrade	18.037	0.324	0.160	-	0.000	0.000	-	-	-	-
HH-60 OLR Mission Modifications	452.721	12.643	1.710	1.570	-	1.570	-	-	-	-
Block 162	48.420	3.370	0.250	-	-	-	-	-	-	-
DVE Sensor	26.580	3.186	18.200	-	-	-	-	-	-	-
HH-60 DATALINKS	27.839	0.550	3.344	-	-	-	-	-	-	-
HH-60G Communication Suite Control Integration	5.490	-	-	-	-	-	-	-	-	-
Low Cost Modifications	7.772	0.750	0.120	2.429	-	2.429	-	-	-	-
MC/AC-Communications Modernization Phase I	-	-	-	1.937	-	1.937	-	-	-	-
MC-Low Cost Modifications	-	-	-	0.500	-	0.500	-	-	-	-
Full Combat Mission Training	76.404	0.000	4.595	0.000	-	0.000	-	-	-	-
MAF Training	33.686	0.100	16.505	0.097	-	0.097	-	-	-	-
ATP upgrade Legacy to SE	106.217	29.861	25.926	0.227	-	0.227	-	-	-	-
DAS000 (ROBE)	10.400	-	-	-	-	-	-	-	-	-
Counterdrug USSOUTHCOM Support	1.200	-	-	-	-	-	-	-	-	-

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MISCELLANEOUS LOW COSTS MODS (Combat Developments)	142.935	4.616	0.154	0.157	-	0.157	-	-	-	-
HH-60U	3.608	1.900	1.897	1.861	-	1.861	-	-	-	-
C-40 - SLC3SA	-	-	-	3.570	-	3.570	-	-	-	-
VC-25A - SLC3SA	-	-	-	0.098	-	0.098	-	-	-	-
<b>Exhibit P-3a</b>										
B-2 Trainer System Upgrade	52.712	0.000	6.465	6.573	0.000	6.573	-	-	-	-
LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS	72.405	0.276	19.194	16.389	0.000	16.389	-	-	-	-
Fully Integrated Data Links	406.100	4.405	1.190	6.999	0.000	6.999	-	-	-	-
CITS UPGRADE	124.162	0.000	1.093	5.046	0.000	5.046	-	-	-	-
VERTICAL SITUATION DISPLAYS	292.106	0.000	0.943	8.213	0.000	8.213	-	-	-	-
MIDS-JTRS	0.000	0.000	11.520	6.977	0.000	6.977	-	-	-	-
B-52 Combat Network Communications Technology	605.536	14.489	0.000	15.737	0.000	15.737	-	-	-	-
Bomber Tactical Data link	0.000	11.934	11.164	25.841	0.000	25.841	-	-	-	-
B-52 Low Cost Improvements	7.071	0.000	2.457	8.925	0.000	8.925	-	-	-	-
B-52 VLF/LF Modernization	0.000	0.000	0.000	20.137	0.000	20.137	-	-	-	-
Distributed Aperture Infrared Countermeasures	-	0.000	0.000	61.191	0.000	61.191	-	-	-	-
LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	165.410	53.335	38.821	57.001	0.000	57.001	-	-	-	-
ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	25.981	2.500	4.700	9.500	0.000	9.500	-	-	-	-
ARC-210	0.000	8.600	18.350	32.300	0.000	32.300	-	-	-	-
A-10 High Resolution Display System (HRDS)	0.000	5.763	0.500	20.173	0.000	20.173	-	-	-	-
3-Dimensional Audio (3DA)	0.000	1.000	5.300	9.300	0.000	9.300	-	-	-	-

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E-11 Mods	0.000	68.027	29.645	68.955	0.000	68.955	-	-	-	-
F-15E Radar Modernization Program APG-82(V)1	1,504.840	155.582	110.088	54.197	0.000	54.197	-	-	-	-
Advanced Display Core Processor, ADCP II-E	96.777	49.187	43.956	78.129	0.000	78.129	-	-	-	-
F-15E MIDS JTRS	34.023	34.576	29.011	38.588	0.000	38.588	-	-	-	-
F-15 C/D SLEP Longerons	12.923	21.627	6.333	25.923	0.000	25.923	-	-	-	-
F-15 F-15 E/MUOS	-	0.630	0.000	8.667	0.000	8.667	-	-	-	-
F-15E DTM II	-	0.000	0.000	7.527	0.000	7.527	-	-	-	-
F-15E Digital Color Display	-	0.000	0.000	15.100	0.000	15.100	-	-	-	-
MMC and Display Generator Upgrade	0.000	0.000	15.386	37.754	0.000	37.754	-	-	-	-
F-16 LEGACY STRUCTURAL SLEP	49.566	45.050	85.751	100.120	0.000	100.120	-	-	-	-
Comm Suite Upgrade	52.142	18.610	57.689	70.021	0.000	70.021	-	-	-	-
HFLCC AGCAS	26.688	17.043	25.917	17.577	0.000	17.577	-	-	-	-
AIFF MODE 5	0.273	0.000	0.000	13.088	0.000	13.088	-	-	-	-
AESA Radars	274.322	159.394	342.196	317.164	0.000	317.164	-	-	-	-
Digital Radar Warning Receiver (RWR)	0.000	0.000	16.187	49.964	0.000	49.964	-	-	-	-
F-16 TRAINING SYSTEMS	14.692	6.302	42.746	6.492	0.000	6.492	-	-	-	-
Reliability and Maintainability Program	1,461.470	53.568	68.839	153.006	0.000	153.006	-	-	-	-
Link 16	86.229	46.031	153.883	52.702	0.000	52.702	-	-	-	-
Trainers Modernization	93.801	31.340	4.866	17.208	0.000	17.208	-	-	-	-
Sensor Enhancement	-	49.002	122.283	196.825	0.000	196.825	-	-	-	-
Block 3i LRIP 2-5 Upgrade	208.635	8.171	0.000	0.000	0.000	0.000	-	-	-	-
Block 3F LRIP 2-5 Upgrade	9.341	0.250	0.000	0.000	0.000	0.000	-	-	-	-
Block 3F LRIP 6-8 Upgrade	0.056	2.800	0.000	0.000	0.000	0.000	-	-	-	-

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Concurrency	613.443	206.324	135.576	1.060	0.000	1.060	-	-	-	-
Correction of Deficiencies	4.612	92.965	122.194	122.518	0.000	122.518	-	-	-	-
Block 4 Modifications	-	19.080	38.062	180.557	0.000	180.557	-	-	-	-
EPAWSS F-15E	149.797	125.417	0.000	149.797	0.000	149.797	-	-	-	-
INCREMENT 3.2B	275.746	20.213	5.889	0.000	0.000	0.000	-	-	-	-
Mission Computer and Weather Radar	64.602	16.238	10.473	11.844	0.000	11.844	-	-	-	-
C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	17.433	31.346	26.940	5.101	0.000	5.101	-	-	-	-
Replacement Heads Up Display (RHUD)	41.270	46.630	33.599	36.307	0.000	36.307	-	-	-	-
Beyond Line of Sight (BLOS)	0.513	2.939	1.367	11.171	0.000	11.171	-	-	-	-
SAT 906	-	-	-	5.984	0.000	5.984	-	-	-	-
Pacer Classic III	218.019	33.363	31.537	40.379	0.000	40.379	-	-	-	-
Talon Repair, Inspection and Maintenance	1.829	2.961	2.685	6.364	0.000	6.364	-	-	-	-
U-2 Mod	157.711	58.563	72.080	57.043	0.000	57.043	-	-	-	-
ASARS-2B Procurement for U-2	-	-	48.138	69.766	0.000	69.766	-	-	-	-
C-130H Avionics Modernization Program (AMP) Increment 2	0.000	0.000	0.000	20.004	0.000	20.004	-	-	-	-
BLOCK 8.1	329.725	90.979	115.790	87.130	0.000	87.130	-	-	-	-
C-130J Center Wing Replacement	117.064	25.683	13.394	23.254	0.000	23.254	-	-	-	-
BLOCK 45	303.592	47.617	60.185	48.794	0.000	48.794	-	-	-	-
Rudder Position Indicator (RPI)	6.364	17.932	3.870	8.779	0.000	8.779	-	-	-	-
COMPASS CALL Baseline Modifications	464.607	110.539	169.683	195.098	0.000	195.098	-	-	-	-
COBRA BALL	26.204	12.177	12.414	12.656	0.000	12.656	-	-	-	-
RIVET JOINT	700.594	197.574	168.952	184.749	0.000	184.749	-	-	-	-

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COMBAT SENT	46.956	9.985	9.966	10.191	0.000	10.191	-	-	-	-
Communication Networking Upgrade (CNU)	0.000	2.879	27.589	24.395	0.000	24.395	-	-	-	-
E-3 DRAGON	155.435	68.290	69.893	48.129	0.000	48.129	-	-	-	-
IP-enabled Capability (IPEC)	87.893	23.971	10.747	13.612	0.000	13.612	-	-	-	-
AWACS Communications Integration Program (ACIP)	-	0.000	0.000	17.891	0.000	17.891	-	-	-	-
AEHF Compatible Terminal/PNVC	8.124	13.365	16.135	9.790	0.000	9.790	-	-	-	-
Common Data Link	5.000	24.749	14.436	8.711	0.000	8.711	-	-	-	-
SATCOM/MUOS Radios	-	-	7.601	7.601	0.000	7.601	-	-	-	-
BLOCK 40/45 BLOCK UPGRADE	805.139	32.821	53.343	30.327	0.000	30.327	-	-	-	-
DEFENSIVE SYSTEM UPGRADE	55.589	0.000	1.800	7.800	0.000	7.800	-	-	-	-
GH Aircraft Mods	532.794	1.704	3.350	3.205	0.000	3.205	-	-	-	-
GH Ground Station Mods	15.523	-	-	-	-	-	-	-	-	-
ASIP Increment I	37.154	0.000	0.000	0.000	0.000	0.000	-	-	-	-
SAR	0.910	-	-	-	-	-	-	-	-	-
ASIP Install/Calibration	4.834	-	-	-	-	-	-	-	-	-
MODE 5/ADS-B	6.267	0.000	0.000	-	-	-	-	-	-	-
Sensor Enhancements	29.382	0.000	0.000	0.000	0.000	0.000	-	-	-	-
Communication Interoperability/Enhancements	3.000	0.000	0.000	0.000	0.000	0.000	-	-	-	-
HC/MC-130J Block 8.1	9.492	0.000	0.000	15.870	0.000	15.870	-	-	-	-
MC-130J Increment 2	39.379	0.000	0.000	0.285	0.000	0.285	-	-	-	-
HC-130J Common Configuration	44.809	0.000	0.574	0.001	0.000	0.001	-	-	-	-
HC-130J Personnel Locator System	17.468	0.000	2.021	0.003	0.000	0.003	-	-	-	-
HC-130J Situational Awareness	66.966	15.349	22.521	2.837	0.000	2.837	-	-	-	-

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Wireless Intercom	11.759	0.000	0.000	0.000	0.000	0.000	-	-	-	-
(AbMN) Airborne Mission Networking	25.576	26.471	16.771	45.195	0.000	45.195	-	-	-	-
ADS-B out Acceleration	2.175	0.000	0.000	0.000	0.000	0.000	-	-	-	-
(RFCM) Radio Frequency Countermeasures	62.529	0.000	28.900	0.000	0.000	0.000	-	-	-	-
Paratroop Door	24.500	0.000	0.000	0.000	0.000	0.000	-	-	-	-
Broadband Antenna	9.400	0.000	0.000	0.000	0.000	0.000	-	-	-	-
MC-130J Link 16	0.000	0.000	4.420	0.000	0.000	0.000	-	-	-	-
Trainer Modifications	-	0.000	0.000	83.617	0.000	83.617	-	-	-	-
HC- Low Cost Modifications	8.503	0.000	1.366	0.018	0.000	0.018	-	-	-	-
ATP-SE Technology Insertion	87.376	13.621	13.846	13.851	0.000	13.851	-	-	-	-
Battlefield ABN Comm Node (BACN)	15.115	0.000	37.851	38.635	0.000	38.635	-	-	-	-
Block 5	74.752	1.515	0.000	0.000	0.000	0.000	-	-	-	-
MQ-9 Field	299.052	13.222	26.244	0.275	0.000	0.275	-	-	-	-
Lynx SAR	96.137	0.000	0.000	0.000	0.000	0.000	-	-	-	-
GCS Blk 30	184.815	2.707	17.648	0.000	0.000	0.000	-	-	-	-
R&M enhancements	74.304	9.114	7.782	4.690	0.000	4.690	-	-	-	-
Extended Range MQ-9	290.276	51.362	11.695	6.350	0.000	6.350	-	-	-	-
MQ-9 Upgrade	289.155	176.494	89.642	130.972	0.000	130.972	-	-	-	-
MQ-9 Low Cost Mods	14.570	0.000	2.000	2.000	0.000	2.000	-	-	-	-
Gorgon Stare	50.905	19.800	63.500	40.800	0.000	40.800	-	-	-	-
C-32 - SLC3SA	-	0.000	0.000	6.437	0.000	6.437	-	-	-	-
C-37 - SLC3SA	-	0.000	0.000	13.449	0.000	13.449	-	-	-	-
Block 20 Upgrade	318.962	63.349	117.397	156.163	0.000	156.163	-	-	-	-

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Low Cost Modifications	21.405	1.999	1.999	1.999	0.000	1.999	-	-	-	-
<b>Totals (Total Obligation Authority)</b>										
<b>Total Obligation Authority</b>	<b>21,886.794</b>	<b>3,389.118</b>	<b>3,728.286</b>	<b>3,777.035</b>	<b>0.000</b>	<b>3,777.035</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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## ACRONYMS

### *GENERAL ACRONYMS*

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

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

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

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

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

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

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

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

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

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

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

### ***IDENTIFICATION CODES***

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0101125F, 0101127F	<b>Other Related Program Elements:</b> 0101127F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	356.195	9.582	30.819	29.944	-	29.944	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	356.195	9.582	30.819	29.944	-	29.944	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>356.195</b>	<b>9.582</b>	<b>30.819</b>	<b>29.944</b>	<b>-</b>	<b>29.944</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

The B-2 is a multi-engine, long range bomber incorporating low-observable ('stealth') technology that enables the B-2 to penetrate enemy air defenses and strike high-value targets. Specific modifications, budgeted and programmed, are below.

Funding for the exhibit is primarily in PE 0101127F (B-2 Squadrons). Some trainer efforts are funded in PE 0809731F (Training Support to Units), and other efforts are funded under PE 0207446F (Bomber Tactical Data Link).

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Description:

The B-2 is a multi-engine, long range bomber incorporating low-observable ('stealth') technology that enables the B-2 to penetrate enemy air defenses and strike high-value targets. Specific modifications, budgeted and programmed, are below.

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Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

The FY 2021 budget restructured and de-scoped the B-2 DMS-M program to modernize the B-2's primary flight displays. The de-scoped effort was re-named to B-2 Display Modernization (BDM).

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF Quantity	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force							<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft					<b>P-1 Line Item Number / Title:</b> B00200 / B-2A					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> 0101125F, 0101127F			<b>Other Related Program Elements:</b> 0101127F				
<b>Line Item MDAP/MAIS Code:</b> N/A										

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
	Total Obligation Authority	9.582	30.819	29.944	-	29.944	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>9.582</b>	<b>30.819</b>	<b>29.944</b>	-	<b>29.944</b>	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
B00200 / B-2A

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101125F, 0101127F **Other Related Program Elements:** 0101127F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	110032 / LINK 16/CID/IFR (Capability Improvement)				- / 4.903	- / 0.200	- / 0.203	- / 0.203	- / -	- / 0.203
P-40a***	110043 / B-2 Adaptable Communications Suite (ACS) (Capability Improvement)				- / 23.422	- / 0.296	- / 0.300	- / 0.300	- / -	- / 0.300
P-40a***	110054 / B-2 Flex Strike Phase 1 (Capability Improvement)				- / 23.730	- / 4.894	- / 2.172	- / -	- / -	- / -
P-40a***	110056 / B61-12 Integration (Capability Improvement)				- / 39.549	- / -	- / -	- / -	- / -	- / -
P-40a***	110057 / MGUE (Capability Improvement)				- / 21.156	- / 0.990	- / 1.096	- / 0.314	- / -	- / 0.314
P-40a***	110061 / IFF Mode 5/S (Capability Improvement)				- / -	- / -	- / -	- / 2.843	- / -	- / 2.843
P-40a***	110062 / Crash Survivable Memory Unit (CSMU) (Capability Improvement)				- / -	- / -	- / -	- / 1.568	- / -	- / 1.568
P-40a***	110065 / B-2 GBU-57 MOP Integration (Capability Improvement)				- / 21.494	- / -	- / -	- / -	- / -	- / -
P-40a***	8882 / Common Very Low Frequency Terminal (Capability Improvement)				- / 58.760	- / 2.376	- / -	- / -	- / -	- / -
P-40a***	99999U / B-2 Low Cost Engine Modifications (Reliability & Maintainability)				- / 18.186	- / 0.236	- / 0.749	- / 0.917	- / -	- / 0.917
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 19.878	- / 0.314	- / 0.640	- / 0.837	- / -	- / 0.837
P-3a	110031 / B-2 Trainer System Upgrade (Capability Improvement)		A		- / 52.712	- / 0.000	- / 6.465	- / 6.573	- / 0.000	- / 6.573
P-3a	110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS (Reliability & Maintainability)		A		- / 72.405	- / 0.276	- / 19.194	- / 16.389	- / 0.000	- / 16.389
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 356.195</b>	<b>- / 9.582</b>	<b>- / 30.819</b>	<b>- / 29.944</b>	<b>- / -</b>	<b>- / 29.944</b>

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

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

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

**Justification:**  
This program, P-3A Mod 110061, IFF Mode 5/S, is a new start.  
This program, P-3A Mod 110062, Crash Survivable Memory Unit (CSMU), is a new start.  
  
See individual P-3A's for FY22 Budget justification

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1		<b>P-1 Line Item Number / Title:</b> B00200 / B-2A			<b>Modification Number / Title:</b> 110031 / B-2 Trainer System Upgrade		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		52.712	0.000	6.465	6.573	0.000	6.573
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		52.712	0.000	6.465	6.573	0.000	6.573
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>52.712</b>	<b>0.000</b>	<b>6.465</b>	<b>6.573</b>	<b>0.000</b>	<b>6.573</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

The B-2 Training System upgrade program ensures concurrency with the aircraft, provides for the evolution of the B-2 Training System as dictated by technology, global threat, and national security realities, and enables the B-2 anti-access/area denial and global strike mission. The B-2 Training System provides initial qualification, proficiency, continuation, re-qualification, mission rehearsal, and upgrade training for B-2 aircrew, maintainers, and weapons loaders. It includes, but is not limited to, the following training elements at Whiteman AFB: three Weapon System Trainers (WSTs) with instructor-operator stations, four Cockpit Procedure Trainers (CPTs), a Weapons Loading Trainer (WLT); a Crew Escape System Maintenance Trainer (CESMT); a Flight Control System Trainer (FCST); a Mission Viewing Room (MVR); and a Training System Support Center (TSSC). The B-2 Training System also includes five maintenance training classrooms each consisting of a Computerized Maintenance Training System (CMTS), six computer-based training (CBT) Weapon System Training Aids (WSTAs), and an instructor operator station.

The B-2 Training System upgrade effort includes, but is not limited to, updates to training device hardware and computers, simulation software, courseware lessons and academics materials, instructional system design architectures, engineering drawings, and system documentation not driven by a funded aircraft modification. These upgrades are ongoing and necessary to ensure concurrent, relevant, and realistic training while providing the combat fidelity necessary to train operational and warfighter employment requirements, preserving precious flight hours, avoiding 30-40 hour on-aircraft training sorties or committing an aircraft to maintenance and weapons loading training negatively affecting aircraft availability. Upgrades include, but are not limited to, updates to threat systems parametric and order of battle information, updates to the communications suite, upgrades of radar emulation components and capabilities in the WSTs/Mission Trainers, updates of display systems and subsystems, and fidelity upgrades of the WST to more precisely resemble air refueling and take-off/landing procedures experienced in the jet. Additional improvements include updates to courseware and simulation associated with nuclear and conventional guided weapons delivery, expanded crypto keyfill training, upgrade of the electronic combat environment threat database. Improvements will also include expanded "freeplay" capability on the CPTs and CMTSS, upgrade of the WST simulation to provide weapons as powered up upon completion of initial conditions, upgrade of the current Defensive Management System simulation and the alternative/emergency procedures courseware, and upgrade of the Suppressor tool. Upgrades may also include Virtual Reality/Augmented Reality training devices and associated software to enhance realism and effectiveness of training. Additionally provides a Mission Director Room, including providing two-way communication (voice and text), providing the ability to prepare scripted events and/or input real-time modifications to the virtual environment (i.e. weather, players, etc.), the means to preview missions, observe live events, and review recorded events, and upgrade of the simulation and computational processors as necessary. Efforts also include upgrades to the Mission Generation System, allowing faster generation of WST missions, among other benefits, and efforts to enhance training fidelity and realism. Additionally, Diminishing Manufacturing Sources efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open systems architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Life of Type buys may be implemented when appropriate to address diminishing manufacturing sources and materiel shortages for affected components and subassemblies to protect the planned production program by mitigating unplanned part redesign and re-qualification risks.

Quantities and delivery dates have not been included due to the wide variety of ongoing modification efforts to the various elements of the B-2 Training System. B-2 Training System funding includes aircraft modification funds from PE 0809731F, specifically for the Maintenance Training System. These amounts are reflected on the P3-A in the "EQUIPMENT Group B (Active)" row. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	<b>Modification Number / Title:</b> 110031 / B-2 Trainer System Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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The FY2022 funding request was reduced by \$2.267 million to account for the availability of prior year execution balances

**Milestone/Development Status**

Development of B-2 Training System upgrades is a continuous process relative to the needs of each funded effort. Some efforts do not require RDT&E, while others require design and test activities. This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0101127F.

		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Secondary Distribution</b>	Quantity	-	-	-	-	-
	Total Obligation Authority	-	6.465	6.573	-	6.573
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>6.465</b>	<b>6.573</b>	<b>0.000</b>	<b>6.573</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B00200 / B-2A			<b>Modification Number / Title:</b> 110031 / B-2 Trainer System Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> B-2		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0101127F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: B-2 Trainer Mods</i>							
A Kits							
Recurring							
B-2 Trainer Mods:INSTALL KITS Group A (Active)	- / 5.889	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	<i>- / 5.889</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
B Kits							
Recurring							
B-2 Trainer Mods:EQUIPMENT Group B (Active)	- / 37.665	- / -	- / 6.465	- / 6.573	- / -	- / 6.573	
<i>Subtotal: Recurring</i>	<i>- / 37.665</i>	<i>- / -</i>	<i>- / 6.465</i>	<i>- / 6.573</i>	<i>- / -</i>	<i>- / 6.573</i>	
<i>Subtotal: B-2 Trainer Mods</i>	<i>- / 43.554</i>	<i>- / -</i>	<i>- / 6.465</i>	<i>- / 6.573</i>	<i>- / -</i>	<i>- / 6.573</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 43.554</i>	<i>- / -</i>	<i>- / 6.465</i>	<i>- / 6.573</i>	<i>- / -</i>	<i>- / 6.573</i>	
<b>Support (All Modification Items)</b>							
SIM/TRAINER	0 / 8.591	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 0.567	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	<i>0 / 9.158</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Installation</b>							
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>52.712</b>	<b>0.000</b>	<b>6.465</b>	<b>6.573</b>	<b>0.000</b>	<b>6.573</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	<b>Modification Number / Title:</b> 110031 / B-2 Trainer System Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> B-2 Trainer Mods			
<b>Manufacturer Information</b>			
Manufacturer Name: L3 Comm		Manufacturer Location: Binghamton, NY	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	<b>Modification Number / Title:</b> 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	72.405	0.276	19.194	16.389	0.000	16.389
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	72.405	0.276	19.194	16.389	0.000	16.389
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>72.405</b>	<b>0.276</b>	<b>19.194</b>	<b>16.389</b>	<b>0.000</b>	<b>16.389</b>

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

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

**Description:**

The Low Observable Signature and Supportability Modifications (LOSSM) program supports the B-2 ability to penetrate anti-access combat environments, performing missions directed by the National Command Authority while ensuring aircrew survivability. The LOSSM program reduces low observable (LO) maintenance, increases aircraft availability, and maintains and improves the combat-ready LO signature for the B-2 fleet. This program includes multiple improvement projects including, but not limited to, improved LO materials (conductive gap fillers and tape, adhesives, electrically resistive materials, radar absorbing material, fastener fills, coatings, and improved processes), LO structures (radar radomes, hot trailing edges and tiles, intermediate section doors, tailpipes, windows, lib bay panels, permanent fasteners, exhaust pockets, gust load alleviation system, inlets, radar absorbing structures, antenna optimization, overall signature stability, and Alternate High Frequency Material expansion), and radio frequency (RF) diagnostic tools and evaluation systems (SCI-2k radar, Tier One Material Inspection System, Signature Diagnostic System, Portable Laser Removal Tool, next generation Tier II and Tier III systems, Hand held Imaging Tool, Test Article 0998 optimization, LO-related special test equipment, and B-2 specific improvements/efforts to Air Force Research Laboratory's Mobile Diagnostic Laboratory).

As this program encompasses multiple projects, the number of installs will not be representative of the number of aircraft affected. Some modifications will be made to each of the 20 B-2 aircraft and other modifications will be made to related B-2 support equipment. Various lead times are required for the different modifications causing different contract and delivery dates.

This program is essential to B-2 Anti-Access and Global Strike mission and supports Aircraft Availability Improvement Program goals. The "Method of Implementation" for these components varies based on the teams performing these component installations. Installs occur at Depot and flight line level and can include either organic or contractor field teams.

LOSSM is fielding many important modifications currently: six Alternate High Frequency Material II upgrades, Pressure Sensitive Adhesive Kapton, new Upper Gust Load Alleviation Panels, new Radar Altimeter, Antennas, Signature Diagnostic System upgrades, and the Advanced Signature Reduction Project 1, the most substantial signature improvement the B-2 has seen in its 30-YR history.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

The FY 2022 funding will be used for prioritized projects in support of the continued survivability and maintainability of the B-2 fleet, including the Upper GLA panel, Advanced Signature Reduction Project 1, Next Generation Zonal Radar, PDM Installs (AHFM), Tier One Material Inspection System, and the Radar Altimeter Antenna.

Milestone/Development Status

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	<b>Modification Number / Title:</b> 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS

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

The Low Observable Signature and Supportability Modification program captures a family of projects. Development efforts continue to mature LO materials and technologies. This program has associated Research Development Test and Evaluation funding in PE 0101127F.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.276	19.194	16.389	-	16.389
<b>Total:</b> Secondary Distribution	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.276</b>	<b>19.194</b>	<b>16.389</b>	<b>0.000</b>	<b>16.389</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	<b>Modification Number / Title:</b> 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> B-2	<b>Modification Type:</b> Reliability & Maintainability	<b>Related RDT&amp;E PEs:</b> 0101127F
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Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> LO Upgrades						
A Kits						
Recurring						
LO Upgrades:INSTALL KITS Group A (Active)	- / 20.751	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 20.751	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: LO Upgrades</i>	- / 20.751	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 20.751	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 2.717	- / -	- / -	- / -	- / -	- / -
Data	- / 5.603	- / -	- / -	- / 2.580	- / -	- / 2.580
OTHER GOVT	- / 25.754	- / -	- / 15.896	- / 10.481	- / -	- / 10.481
SUPPORT-EQUIP	- / 8.805	- / 0.276	- / -	- / -	- / -	- / -
PMA - Other Gov't Costs	- / 8.775	- / -	- / 3.298	- / 3.328	- / -	- / 3.328
<i>Subtotal: Support</i>	- / 51.654	- / 0.276	- / 19.194	- / 16.389	- / -	- / 16.389
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>72.405</b>	<b>0.276</b>	<b>19.194</b>	<b>16.389</b>	<b>0.000</b>	<b>16.389</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1		<b>P-1 Line Item Number / Title:</b> B00200 / B-2A	
		<b>Modification Number / Title:</b> 110035 / LOW OBSERVABLE SIGNATURE AND SUPPORTABILITY MODS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> LO Upgrades			
<b>Manufacturer Information</b>			
Manufacturer Name: Various		Manufacturer Location: Various	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
B01B00 / B-1B

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101126F **Other Related Program Elements:** 0101126F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	920.649	12.659	21.808	30.518	-	30.518	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	920.649	12.659	21.808	30.518	-	30.518	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>920.649</b>	<b>12.659</b>	<b>21.808</b>	<b>30.518</b>	-	<b>30.518</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	0.717	0.847	-	0.847	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The B-1B Lancer is a swing-wing, supersonic, long-range, conventional bomber. It carries the largest payload of both guided and unguided weapons in the Air Force inventory. The multi-mission B-1B is the backbone of America's long-range bomber force and can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, anywhere in the world, at any time. The Air Force maintained 62 B-1B aircraft in its inventory. In FY21, the Air Force retires 17 B-1B aircraft, bringing the total aircraft inventory to 45. No further divestments planned in FY22.

The B-1B averages 9,779 airframe hours as of May 2021 (Source: Logistics Inventory Management System-Earned Value (LIMS-EV)). Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. All modifications in this exhibit are procured with Pacific Defense Initiative funding.

The FY2022 funding request was reduced by \$2.915 million to account for the availability of prior year execution balances

This line item funds modifications to the B-1B aircraft and associated simulators and equipment. Funding for this exhibit contained in PE 0101126F.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
B01B00 / B-1B

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101126F **Other Related Program Elements:** 0101126F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	4291 / B-1 TRAINING SUPPORT (Capability Improvement)				- / 3.879	- / 0.458	- / 0.575	- / 0.071	- / -	- / 0.071
P-40a***	92294 / LAPTOP CONTROLLED TARGETING POD (Capability Improvement)				- / 87.969	- / 1.594	- / -	- / -	- / -	- / -
P-40a***	92316 / Radio Crypto Compliance (Capability Improvement)				- / -	- / -	- / 0.493	- / 3.112	- / -	- / 3.112
P-40a***	92317 / IFF Mode 5/S (Capability Improvement)				- / 0.796	- / 5.953	- / 5.994	- / 0.000	- / -	- / 0.000
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 5.637	- / 0.249	- / -	- / 0.100	- / -	- / 0.100
P-3a	4280 / Fully Integrated Data Links (Capability Improvement)		B		- / 406.100	- / 4.405	- / 1.190	- / 6.999	- / 0.000	- / 6.999
P-3a	4284 / CITS UPGRADE (Service Life Extension)		B		- / 124.162	- / 0.000	- / 1.093	- / 5.046	- / 0.000	- / 5.046
P-3a	8971 / VERTICAL SITUATION DISPLAYS (Service Life Extension)		A		- / 292.106	- / 0.000	- / 0.943	- / 8.213	- / 0.000	- / 8.213
P-3a	92314 / MIDS-JTRS (Capability Improvement)		B		- / 0.000	- / 0.000	- / 11.520	- / 6.977	- / 0.000	- / 6.977
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 920.649</b>	<b>- / 12.659</b>	<b>- / 21.808</b>	<b>- / 30.518</b>	<b>- / -</b>	<b>- / 30.518</b>

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

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

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

**Justification:**  
This program, P-3A Mod 99999X, Low Cost Modifications, is a new start.

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 4280 / Fully Integrated Data Links

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	406.100	4.405	1.190	6.999	0.000	6.999
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	406.100	4.405	1.190	6.999	0.000	6.999
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>406.100</b>	<b>4.405</b>	<b>1.190</b>	<b>6.999</b>	<b>0.000</b>	<b>6.999</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	26.262	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Fully Integrated Data Link (FIDL) is a net-centric warfare upgrade enabling full B-1B participation in joint combat and time-critical targeting operations. FIDL adds line-of-sight and beyond line-of-sight command and control (C2) connectivity through the addition of Link 16 and Joint Range Extension (JRE) data link. Modification funds will procure and install Group A and B kits for the FIDL upgrade to the B-1B. This modification provides two tactical data processors and five multi-function displays for the B-1B aft crew stations. This modification also adds an Ethernet infrastructure enabling rapid airborne re-targeting by high-speed transfer of aircraft information to all four crew stations and on-board weapons. Modification funding is being used to alleviate Diminishing Manufacturing Sources (DMS) and Material Shortages (DMSMS) issues. DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS).

The Integrated Battle Station (IBS) is the integrated production phase of three development programs: FIDL, Vertical Situation Display Upgrade, and Central Integrated Test System. IBS installations completed in 4QFY20. Continued funding is required through FY23 to support IBS Diminishing Manufacturing Source (DMS) resolution and Interim Contractor Support (ICS) until depot activation is accomplished in FY23. Any reduction of funding will result in a shortage of parts and grounded aircraft.

If the IBS programs (FIDL) do not receive adequate funding then Depot Activation and DMS solutions cannot complete as scheduled and lack of ICS contractual coverage will lead to reduced serviceable line replaceable units to the field, ultimately resulting in impact to B-1 mission capability.

Note: OGC includes DMS and Depot Activation costs.

**Milestone/Development Status**

**DMS Resolution schedule:**

Class I ECP for Mass Storage System Replacement

Kit Procurement NLT Dec 21

Kit Installations funded by May 22 (Completion goal is Dec 22)

**Depot Activation schedule:**

Processors complete by May 22

Multi-functional Displays (MFD) complete by Apr 23

ICS for FIDL repairs required until Jun 23, NLT Dec 23

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B		<b>Modification Number / Title:</b> 4280 / Fully Integrated Data Links	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-1B		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0101126F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101126F	2 / 162.988	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<i>Modification Item 1 of 1: IBS</i>						
A Kits						
Recurring						
IBS:INSTALL KITS Group A (Active)	60 / 26.375	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 26.375	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
IBS:EQUIPMENT Group B (Active)	60 / 136.174	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 136.174	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: IBS</i>	- / 162.549	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 162.549	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 40.371	- / 0.140	- / -	- / 0.000	- / -	- / 0.000
Change Orders	- / 23.739	- / -	- / -	- / -	- / -	- / -
Data	- / 2.447	- / -	- / -	- / -	- / -	- / -
SIM/TRAINER	6 / 9.233	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 41.583	- / -	- / -	- / -	- / -	- / -
ICS-Material	- / 22.836	- / 1.740	- / -	- / 3.600	- / -	- / 3.600
OTHER GOVT	- / 23.399	- / 2.525	- / 1.190	- / 3.099	- / -	- / 3.099
A&AS	- / 8.783	- / -	- / -	- / 0.300	- / -	- / 0.300
PMA - Other Gov't Costs	- / 2.951	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	6 / 175.342	- / 4.405	- / 1.190	- / 6.999	- / -	- / 6.999
<b>Installation</b>						
<i>Modification Item 1 of 1: IBS</i>						
	60 / 68.209	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	60 / 68.209	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>406.100</b>	<b>4.405</b>	<b>1.190</b>	<b>6.999</b>	<b>0.000</b>	<b>6.999</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 4280 / Fully Integrated Data Links
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** IBS

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 20

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	60 / 68.209	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>60 / 68.209</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	60	-	-	-	-	-	-	-	-	-	-	-	-
Out	53	0	3	1	3	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 4284 / CITS UPGRADE

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	124.162	0.000	1.093	5.046	0.000	5.046
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	124.162	0.000	1.093	5.046	0.000	5.046
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>124.162</b>	<b>0.000</b>	<b>1.093</b>	<b>5.046</b>	<b>0.000</b>	<b>5.046</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	7.202	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Central Integrated Test System (CITS) is the B-1B on-board diagnostic system that monitors aircraft avionics and mechanical systems on the ground and during flight, reporting faults to aircrew and maintainers. This modification provides a new CITS Dedicated Processor (CDP), upgraded Multi-Functional Display (MFD), and re-hosted CITS software, resulting in enhanced diagnostic capabilities, improved turnaround time, and reduced maintenance costs. Modification funding is being used to alleviate Diminishing Manufacturing Sources and Material Shortages (DMSMS). DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS).

The Integrated Battle Station (IBS) is the integrated production phase of three development programs: Fully Integrated Data Link, Vertical Situation Display Upgrade, and CITS. IBS installations completed in 4QFY20. Continued funding is required through FY23 to support IBS Diminishing Manufacturing Source (DMS) resolution and Interim Contractor Support (ICS) until depot activation is accomplished in FY23. Any reduction of funding will result in a shortage of parts and grounded aircraft.

If the IBS programs (CITS) do not receive adequate funding then Depot Activation and DMS solutions cannot complete as scheduled and lack of ICS contractual coverage will lead to reduced serviceable line replaceable units to the field, ultimately resulting in impact to B-1 mission capability.

**Notes:**

OTHER GOVT includes Depot Activation and DMS costs.

PMA includes travel cost.

**Milestone/Development Status**

**Depot Activation schedule:**

Processors complete by May 22

Multi-functional Displays (MFD) complete by Apr 23

ICS for CITS repairs required until Jun 23, NLT Dec 23

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B		<b>Modification Number / Title:</b> 4284 / CITS UPGRADE	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-1B		<b>Modification Type:</b> Service Life Extension		<b>Related RDT&amp;E PEs:</b> 0101126F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101126F	2 / 49.635	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> IBS (2)						
A Kits						
Recurring						
IBS:INSTALL KITS Group A (Active)	60 / 5.387	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 5.387	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
IBS:EQUIPMENT Group B (Active)	60 / 24.987	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 24.987	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: IBS (2)</i>	- / 30.374	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 30.374	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -
GROUP B: TOTAL NONRECURRING	- / 18.944	- / -	- / -	- / -	- / -	- / -
Change Orders	- / 3.313	- / -	- / -	- / -	- / -	- / -
Data	- / 1.337	- / -	- / -	- / -	- / -	- / -
SIM/TRAINER	4 / 3.672	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 10.577	- / -	- / -	- / -	- / -	- / -
ICS-Material	- / 9.387	- / -	- / -	- / 12.195	- / -	- / 12.195
OTHER GOVT	- / 11.406	- / -	- / 10.005	- / 2.451	- / -	- / 12.451
PMA - Contractor Services	- / 12.389	- / -	- / 1.088	- / -	- / -	- / -
PMA - Other Gov't Costs	- / 0.285	- / -	- / -	- / 0.400	- / -	- / 0.400
<i>Subtotal: Support</i>	4 / 61.310	- / -	- / 1.093	- / 5.046	- / -	- / 5.046
<b>Installation</b>						
<b>Modification Item 1 of 1:</b> IBS (2)						
<i>Subtotal: Installation</i>	60 / 32.478	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>124.162</b>	<b>0.000</b>	<b>1.093</b>	<b>5.046</b>	<b>0.000</b>	<b>5.046</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 4284 / CITS UPGRADE
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** IBS (2)

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 20

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	60 / 32.478	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	60 / 32.478	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	60		-	-	-	-	-	-	-	-	-	-	-	-
	52		3	3	2	-	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 8971 / VERTICAL SITUATION DISPLAYS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	292.106	0.000	0.943	8.213	0.000	8.213
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	292.106	0.000	0.943	8.213	0.000	8.213
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>292.106</b>	<b>0.000</b>	<b>0.943</b>	<b>8.213</b>	<b>0.000</b>	<b>8.213</b>

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

Initial Spares ( <i>\$ in Millions</i> )	17.867	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Vertical Situation Display Upgrade (VSDU) is a safety-critical program to replace B-1B pilot and co-pilot primary flight displays and associated flight instruments. This modification installs two 8"x6" color displays at pilot and co-pilot stations to provide Primary Flight Information (PFI) and backup PFI to meet flight safety standards. These displays also provide front crew situational awareness from the Fully Integrated Data Link (FIDL) enhancing the ability to avoid threats and strike emerging targets. Modification funding will be used for DMS and Material Shortages (DMSMS). DMSMS activities can include, but are not limited to, life of type buy or minor redesign. Procurement modification funding will be used to establish depot repair capability and for Interim Contractor Support (ICS). Activities comprised in the equipment non-recurring line include, but are not limited to, production test equipment and tooling.

The Integrated Battle Station (IBS) is the integrated production phase of three development programs: FIDL, the Vertical Situation Display Upgrade, and the Central Integrated Test System. IBS installations completed in 4QFY20. Continued funding is required through FY23 to support IBS Diminishing Manufacturing Source (DMS) resolution and Interim Contractor Support (ICS) until depot activation is accomplished in FY23. Any reduction of funding will result in a shortage of parts and grounded aircraft.

If the IBS programs (VSDU) do not receive adequate funding then Depot Activation and DMS solutions cannot complete as scheduled and lack of ICS contractual coverage will lead to reduced serviceable line replaceable units to the field, ultimately resulting in impact to B-1 mission capability.

Note: OGC includes DMS and Depot Activation costs.

**Milestone/Development Status**

**DMS Resolution schedule:**

GFP B-1 Common Automatic Tester (BCATS) for the processor repairs will require IBS to fund Boeing to maintain and sustain the tester until Depot Activation is complete (TRCs Tinker - Processors and Hill - MFDs uses VDATS).

**Depot Activation schedule:**

Processors complete by May 22

Multi-functional Displays (MFD) complete by Apr 23

ICS for VSDU repairs required until Jun 23, NLT Dec 23

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B			<b>Modification Number / Title:</b> 8971 / VERTICAL SITUATION DISPLAYS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-1B			<b>Modification Type:</b> Service Life Extension			<b>Related RDT&amp;E PEs:</b> 0101126F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0101126F	2 / 166.669	- / -	- / -	- / -	- / -	- / -	
<b>Procurement</b>							
<b>Modification Item 1 of 1: IBS (3)</b>							
A Kits							
Recurring							
IBS:INSTALL KITS Group A (Active)	60 / 14.878	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 14.878	- / -	- / -	- / -	- / -	- / -	
B Kits							
Recurring							
IBS:EQUIPMENT Group B (Active)	60 / 69.183	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 69.183	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: IBS (3)</i>	- / 84.061	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 84.061	- / -	- / -	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / 14.903	- / -	- / -	- / -	- / -	- / -	
Change Orders	- / 10.718	- / -	- / -	- / -	- / -	- / -	
Data	- / 1.540	- / -	- / -	- / -	- / -	- / -	
SIM/TRAINER	2 / 4.962	- / -	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 18.646	- / -	- / -	- / -	- / -	- / -	
ICS-Material	- / 24.788	- / -	- / -	- / 3.000	- / -	- / 3.000	
OTHER GOVT	- / 42.940	- / -	- / 0.943	- / 15.213	- / -	- / 15.213	
PMA - Contractor Services	- / 8.562	- / -	- / -	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / 0.411	- / -	- / -	- / 0.000	- / -	- / 0.000	
<i>Subtotal: Support</i>	2 / 127.470	- / -	- / 0.943	- / 8.213	- / -	- / 8.213	
<b>Installation</b>							
<b>Modification Item 1 of 1: IBS (3)</b>							
<i>Subtotal: Installation</i>	60 / 80.575	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>292.106</b>	<b>0.000</b>	<b>0.943</b>	<b>8.213</b>	<b>0.000</b>	<b>8.213</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 8971 / VERTICAL SITUATION DISPLAYS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** IBS (3)

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 20

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	60 / 80.575	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	60 / 80.575	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	60	-	-	-	-	-	-	-	-	-	-	-	-
Out	53	0	3	1	3	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date: May 2021</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 92314 / MIDS-JTRS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	11.520	6.977	0.000	6.977
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	11.520	6.977	0.000	6.977
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>11.520</b>	<b>6.977</b>	<b>0.000</b>	<b>6.977</b>

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

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

**Description:**

The B-1B Multifunctional Information Distribution System (MIDS) - Joint Tactical Radio System (JTRS) replaces the existing MIDS Low Volume Terminal (MIDS-LVT) 1 Link 16 terminal to meet National Security Agency (NSA) Crypto Modernization Device Cease Key and Federal Aviation Administration (FAA)/National Telecommunication and Information Agency (NTIA) Frequency Remap mandates; systems become non-compliant in 2022. MIDS-JTRS resolves all LVT 1 deficiencies and adds substantial combat capability enhancements: Link 16 Enhanced Throughput (LET), Concurrent Multi-Netting (CMN-4) with Concurrent Retention Receive (CRR). MIDS-JTRS also provides multi-data link capability, improving situational awareness and allows rapid inflight re-targeting in cooperative combat environment.

Funds are included to accommodate the DoD crypto and FAA/NTIA frequency remapping mandates for MIDS-JTRS, P-3A 92314, as outlined throughout previous Air Force and DoD budget exhibits.

This modification is for the B-1B fleet of 45 aircraft (2 developmental test + 2 operational test + 6 prototypes + 35 production aircraft kits) that are being modified with Pacific Defense Initiative funding and will be installed with a contract field team. There are two increments for this program to prioritize mandate compliance. Increment 1 efforts addresses both the NSA and FAA/NTIA mandates by replacing the MIDS-LVT with the MIDS-JTRS terminals. Increment 2 includes Group A kits only to lay-in Ethernet and software solution to incorporate additional J-message capability.

Funding may be used, but not limited to, addressing Diminishing Manufacturing Sources (DMS) issues and the installation of Ethernet wiring to support higher bandwidth messaging.

MIDS-JTRS is a fielded system and Space & Naval Warfare Systems Command (SPAWAR) manages MIDS-JTRS production contract for the DoD. Terminals are in full production and take 12 months to produce. After the terminals are produced, the deliveries are staggered up to an additional 12 months.

Development funding for this exhibit contained in PE 0101126F.

**Milestone/Development Status**

MIDS-JTRS is currently in EMD. Expected to reach Milestone C 2QFY22.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1		<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B			<b>Modification Number / Title:</b> 92314 / MIDS-JTRS		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> B-1		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0101126F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0101126F	0 / 14.952	- / 0.760	- / 3.341	- / 14.830	- / -	- / 14.830	
<b>Procurement</b>							
<i>Modification Item 1 of 1: MIDS-JTRS Terminals</i>							
B Kits							
Recurring							
MIDS-JTRS Terminals:EQUIPMENT Group B (Active)	- / -	- / -	35 / 8.400	- / 0.591	- / -	- / 0.591	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 8.400	- / 0.591	- / -	- / 0.591	
<i>Subtotal: MIDS-JTRS Terminals</i>	- / -	- / -	- / 8.400	- / 0.591	- / -	- / 0.591	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 8.400	- / 0.591	- / -	- / 0.591	
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / -	- / -	- / -	- / 0.400	- / -	- / 0.400	
Change Orders	- / -	- / -	- / -	- / 2.109	- / -	- / 2.109	
Mod of Spares	- / -	- / -	- / 3.120	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / -	- / -	- / 3.120	- / 2.509	- / -	- / 2.509	
<b>Installation</b>							
<i>Modification Item 1 of 1: MIDS-JTRS Terminals</i>	- / -	- / -	- / -	12 / 3.877	- / -	12 / 3.877	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	12 / 3.877	- / -	12 / 3.877	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>11.520</b>	<b>6.977</b>	<b>0.000</b>	<b>6.977</b>	

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B01B00 / B-1B	<b>Modification Number / Title:</b> 92314 / MIDS-JTRS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MIDS-JTRS Terminals

**Manufacturer Information**

Manufacturer Name: Viasat	Manufacturer Location: California
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		May 2021	May 2021
Delivery Dates		May 2022	May 2022

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	12 / 3.877	- / -	12 / 3.877
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	12 / 3.877	- / -	12 / 3.877

**Installation Schedule**

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

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
B05200 / B-52

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101113F **Other Related Program Elements:** 0101113F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	757.236	41.433	27.279	74.957	-	74.957	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	757.236	41.433	27.279	74.957	-	74.957	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>757.236</b>	<b>41.433</b>	<b>27.279</b>	<b>74.957</b>	<b>-</b>	<b>74.957</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	2.499	2.692	7.863	-	7.863	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to the B-52H aircraft. The B-52H strategic bomber maintains nuclear and conventional taskings. The Air Force maintains 76 B-52Hs in its inventory. All modifications in this exhibit are procured with Pacific Defense Initiative funding. The B-52H averages 19,965 airframe hours as of May 2021 (Source: Logistics Inventory Management System-Earned Value (LIMS-EV)).

The specific modifications budgeted and programmed for B-52H fleet consist of: 3310/B-52 Combat Network Communications Technology, 6885/AETC Trainers, 6889/Bomber Tactical Data Link (TDL), 6892/B-52 Low Cost Improvements (LCI), 6893/GPS-IU Replacement, 6896/B-52 VLF/LF Modernization, 6895/Advanced Targeting Pod (ATP) Multi-Function Color Display (MFCD), 6890/Radar Modernization Program (RMP), 6893/Global Positioning System (GPS)-Interface Unit (IU) Replacement, 6894/Crypto Modernization, and 1/Other Mods.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for the exhibit contained in PE 0101113F. Funding under this PE may be used to alleviate Diminishing Manufacturing Sources (DMS) issues.

Funding changes for FY22 (total decrease of 66.502M):

ATP MFCD (-22.884M), CONECT (-17.053M), GPS-IU (-22.337M), RMP (-2.359M), LCM (+6.417M), Crypto Mod (-0.033M), VLF/LF (-13.386M), TDL (+5.145M), and AETC Trainers (-0.008M)

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	39.503	27.279	69.933	-	69.933	-	-	-	-
AFR									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.930	-	5.024	-	5.024	-	-	-	-
<b>Total:</b>									
<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	<b>P-1 Line Item Number / Title:</b> B05200 / B-52
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0101113F	<b>Other Related Program Elements:</b> 0101113F
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**Line Item MDAP/MAIS Code:** N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	41.433	27.279	74.957	-	74.957	-	-	-	-

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**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
B05200 / B-52

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101113F **Other Related Program Elements:** 0101113F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	3265 / B-52 Anti-Skid Replacement (Reliability & Maintainability)				- / 21.374	- / 0.932	- / 0.948	- / -	- / -	- / -
P-40a***	6884 / B-52 Internal Weapons Bay Upgrade (Capability Improvement)				- / 77.119	- / 0.000	- / -	- / -	- / -	- / -
P-40a***	6885 / AETC Trainers (B-52) (Other)				- / 11.940	- / 2.524	- / 0.226	- / 0.389	- / -	- / 0.389
P-40a***	6890 / B-52 Radar Modernization (Capability Improvement)				- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	6891 / B-52 WST AR Upgrade Trainer (Other)				- / -	- / 0.855	- / -	- / -	- / -	- / -
P-40a***	6893 / GPS-IU Replacement (Capability Improvement)				- / -	- / 6.730	- / 12.014	- / -	- / -	- / -
P-40a***	6894 / B-52 Crypto Modernization (Capability Improvement)				- / -	- / -	- / -	- / 3.452	- / -	- / 3.452
P-40a***	6898 / B-52 IR Missile Warning System (Safety)				- / 16.400	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Other Mods (Other)				- / 17.796	- / 3.969	- / 0.470	- / 0.476	- / -	- / 0.476
P-3a	3310 / B-52 Combat Network Communications Technology (Capability Improvement)		A		- / 605.536	- / 14.489	- / 0.000	- / 15.737	- / 0.000	- / 15.737
P-3a	6889 / Bomber Tactical Data link (Capability Improvement)		B		- / 0.000	- / 11.934	- / 11.164	- / 25.841	- / 0.000	- / 25.841
P-3a	6892 / B-52 Low Cost Improvements (Capability Improvement)		B		- / 7.071	- / 0.000	- / 2.457	- / 8.925	- / 0.000	- / 8.925
P-3a	6896 / B-52 VLF/LF Modernization (Capability Improvement)		B		- / 0.000	- / 0.000	- / 0.000	- / 20.137	- / 0.000	- / 20.137
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 757.236</b>	<b>- / 41.433</b>	<b>- / 27.279</b>	<b>- / 74.957</b>	<b>- / -</b>	<b>- / 74.957</b>

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

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

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

**Justification:**  
 This program, P-3A Mod 3310, B-52 Combat Network Communications Technology, is a new start.  
 This program, P-3A Mod 6894, B-52 Crypto Modernization, is a new start.  
 This program, P-3A Mod 6896, B-52 VLF/LF Modernization, is a new start.

The following programs are receiving procurement funding in FY22, more information for each program can be found in the respective P-3As:  
 3310/B-52 Combat Network Communications Technology (FY22 supports Depot Stand-Up, ICS and Ground Station)  
 6885/AETC Trainers  
 6889/Bomber Tactical Data Link  
 6892/B-52 Low Cost Improvements (FY22 supports Mission Data Recorder procurement buy)  
 6884/B-52 Crypto Modernization  
 6896/B-52 VLF/LF Modernization  
 1/Other Mods

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 3310 / B-52 Combat Network Communications Technology

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	605.536	14.489	0.000	15.737	0.000	15.737
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	605.536	14.489	0.000	15.737	0.000	15.737
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>605.536</b>	<b>14.489</b>	<b>0.000</b>	<b>15.737</b>	<b>0.000</b>	<b>15.737</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	33.358	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 3310, B-52 Combat Network Communications Technology, is a new start. The B-52H Combat Network Communication Technology (CONNECT) acquisition project supports nuclear and conventional operations by upgrading the B-52H fleet with data and voice communications capabilities along with improved threat and situational awareness to support participation in network centric operations. This CONNECT modification includes procurement of 74 aircraft kits + 2 EMD kits that will be installed in conjunction with Programmed Depot Maintenance (PDM). Ground station mission planning hardware, support equipment, initial spares, and Interim Contractor Support will be procured. Additional initial support/readiness efforts will develop and upgrade B-52H training devices with CONNECT functionality. The CONNECT training device upgrades provide full CONNECT functionality to support aircrew training. The Aircrew Training Devices (ATDs) include three B-52H Weapon System Trainers (WST) and two Offensive Station Mission Trainers (OSMT), and the upgrades will also be installed in the Systems Integration Lab (SIL). The Other Government Cost line includes, but is not limited to, Diminishing Manufacturing Sources (DMS) costs to maintain the production configuration through the identification, review and monitoring of items with high obsolescence risk potential, classification of identified items according to criticality, identification of alternatives and implementation of resolutions. Resolutions may include non-recurring engineering (NRE) and/or replacement costs for DMS components, bridge buys of DMS components until NRE can be completed or Life of Type buys, whichever is most appropriate. Included in the Support Equipment line is the planning for establishment of an organic Depot capability, stand-up of the depot, procurement of depot equipment and procurement of the CONNECT ground station. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

DMS efforts include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient, as well as implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0101113F. Two EMD kits were purchased with RDT&E funding.

Funds may be used to address emerging and short notice DMS and DMSMS issues. Funds may be used to resolve emerging safety of flight and DMS issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

CONNECT installation will complete in FY21 for the entire B-52 fleet of 76 aircraft. FY22 15.737M funds support completion of depot activation and crew ground stations.

Depot Source Of Repair (DSOR) Number: 19-066.

Milestone/Development Status

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 3310 / B-52 Combat Network Communications Technology

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

Development began in FY05. CONECT Initial Operational Test & Evaluation (IOT&E) flight test completed November 2011. The Low Rate Initial Production (LRIP) Lot 1 contract was awarded in May 2013. The LRIP Lot 2 contract was awarded August 2014. Full Rate Production Lot 1a (10 units) was awarded February 2015. Full Rate Production Lot 1b (additional 7 units) was awarded 8 August 2015, Lot 2 (additional 16 units) was awarded 29 January 2016, Lot 3 (additional 13 units) 16 December 2016. Full Rate Production Lot 4, 10 units was awarded 16 Nov 17. All kits receives of Jan 2020. All aircraft installation to be completed by 3QFY21, with FOC in the 4QFY21. Program funding in FY22 and FY23 support Depot Stand-Up (by 4QFY23), interim contractor support (ICS) until depot stand-up, and Crew Ground Station.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	14.489	0.000	15.737	-	15.737
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	0.000	-	-	-
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>14.489</b>	<b>0.000</b>	<b>15.737</b>	<b>0.000</b>	<b>15.737</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B05200 / B-52			<b>Modification Number / Title:</b> 3310 / B-52 Combat Network Communications Technology	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> B-52H		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0101113F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0101113F	2 / 21.044	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	
<b>Procurement</b>							
<b>Modification Item 1 of 1: CONECT Kit</b>							
A Kits							
Recurring							
CONECT Kit:INSTALL KITS Group A (Active)	36 / 48.496	1 / 1.943	- / -	- / -	- / -	- / -	
CONECT Kit:INSTALL KITS Group A (Reserve)	37 / 20.882	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 69.378</b>	<b>- / 1.943</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
B Kits							
Recurring							
CONECT Kit:EQUIPMENT Group B (Active)	49 / 136.128	- / -	- / -	- / -	- / -	- / -	
CONECT Kit:EQUIPMENT Group B (Reserve)	25 / 39.482	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 175.610</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: CONECT Kit</b>	<b>- / 244.988</b>	<b>- / 1.943</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 244.988</b>	<b>- / 1.943</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 5.623	- / -	- / -	- / -	- / -	- / -	
GROUP B: TOTAL NONRECURRING	- / 66.949	- / 0.040	- / -	- / -	- / -	- / -	
Change Orders	- / 19.753	- / -	- / -	- / 0.100	- / -	- / 0.100	
Data	- / 0.465	- / -	- / -	- / 8.033	- / -	- / 8.033	
SIM/TRAINER	0 / 10.328	- / 8.645	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 52.179	- / 11.850	- / -	- / 6.100	- / -	- / 6.100	
OTHER GOVT	- / 68.217	- / -	- / -	- / 1.504	- / -	- / 1.504	
GFP	- / 13.640	- / -	- / -	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / 141.765	- / 12.011	- / -	- / -	- / -	- / -	
<b>Subtotal: Support</b>	<b>0 / 278.919</b>	<b>- / 12.546</b>	<b>- / -</b>	<b>- / 15.737</b>	<b>- / -</b>	<b>- / 15.737</b>	
<b>Installation</b>							
<b>Modification Item 1 of 1: CONECT Kit</b>	62 / 81.629	7 / 0.000	5 / 0.000	- / -	- / -	- / -	
<b>Subtotal: Installation</b>	<b>62 / 81.629</b>	<b>7 / -</b>	<b>5 / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Total</b>							

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 3310 / B-52 Combat Network Communications Technology

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> B-52H	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0101113F
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<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total Cost (Procurement + Support + Installation)</b>	605.536	14.489	0.000	15.737	0.000	15.737

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 3310 / B-52 Combat Network Communications Technology

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** CONECT Kit

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City, OK
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 9

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

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	62 / 81.629	7 / 0.000	4 / 0.000	- / -	- / -	- / -
FY 2020	- / -	- / -	1 / 0.000	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	62 / 81.629	7 / 0.000	5 / 0.000	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	62	3	1	1	2	1	3	1	0	-	-	-	-
Out	62	3	1	1	2	1	3	1	0	-	-	-	-

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 6889 / Bomber Tactical Data link

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	11.934	11.164	25.841	0.000	25.841
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	11.934	11.164	25.841	0.000	25.841
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>11.934</b>	<b>11.164</b>	<b>25.841</b>	<b>0.000</b>	<b>25.841</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	2.381	2.495	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Tactical Data Link (TDL) will provide low latency, jam-resistant situational awareness and command/control needed to support in-theater operations/missions via a Line-of-Sight (LOS) Link 16 capability. The program consist of integrating an existing off-the-shelf Link 16 terminal into the B-52H. Integration includes Group A wiring, rack and antennas, and the Group B terminal, blanking unit and notch filter Line Replaceable Units (LRU). The Multi-Functional Information Distribution System Joint Tactical Radio System (MIDS-JTRS) terminals will be installed inside Section 41 of the aircraft and two external antennas will be mounted on the top and bottom of the fuselage. The TDL terminal and LOS capability will be integrated with the rest of the Combat Network Communications Technology (CONNECT) subsystem. Updates to Common Link Integration Processing (CLIP) will be required to support both LOS and Beyond Line-of-Sight (BLOS) message processing.

This modification is required for the B-52 fleet of 76 aircraft which will be modified using Pacific Defense Initiative funding. Currently, the program is funded to modify 42 B-52 aircraft in production and 2 in Engineering and Manufacturing Development (EMD). Future funding for remaining fleet will be addressed in future budget cycle.

This modification includes procurement of 42 contractor provided aircraft kits + 2 EMD kits that will be installed via programmed depot maintenance (PDM) and contract field teams (CFT). The program will also be procuring 1 full contractor provided aircraft kit to be used as a spare during installation. The two kits will be procured under the EMD contract to support on-aircraft developmental testing.

This modification includes procurement of Group B kits, consisting of 42 production MIDS-JTRS terminals and 7 EMD MIDS-JTRS terminals (2 environmental, 2 aircraft, 2 System Integration Lab (SIL), and 1 spare SIL). The MIDS-JTRS terminals are Government Furnished Equipment (GFE) and will be provided to contractor for installation.

In addition, funds may be used to resolve emerging safety of flight and diminishing manufacturing sources (DMS) issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

DMS efforts include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient, as well as implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

**Milestone/Development Status**

EMD Contract awarded 9 Sep 2017  
Milestone C Jan 2022

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 6889 / Bomber Tactical Data link
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Secondary Distribution</b>	Quantity	-	-	-	-	-
	Total Obligation Authority	10.104	11.164	20.817	-	20.817
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	1.830	-	5.024	-	5.024
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>11.934</b>	<b>11.164</b>	<b>25.841</b>	<b>0.000</b>	<b>25.841</b>



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B05200 / B-52		<b>Modification Number / Title:</b> 6889 / Bomber Tactical Data link	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-52H		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0101113F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101113F	2 / 19.841	- / 2.878	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> Link-16						
A Kits						
Recurring						
Link-16:INSTALL KITS Group A (Active)	- / -	7 / 2.135	- / -	17 / 5.338	- / -	17 / 5.338
Link-16:INSTALL KITS Group A (Reserve)	- / -	3 / 0.915	- / -	8 / 2.512	- / -	8 / 2.512
<b>Subtotal: Recurring</b>	- / -	- / 3.050	- / -	- / 7.850	- / -	- / 7.850
B Kits						
Recurring						
Link-16:EQUIPMENT Group B (Active)	- / -	7 / 2.135	- / -	17 / 5.338	- / -	17 / 5.338
Link-16:EQUIPMENT Group B (Reserve)	- / -	3 / 0.915	- / -	8 / 2.512	- / -	8 / 2.512
<b>Subtotal: Recurring</b>	- / -	- / 3.050	- / -	- / 7.850	- / -	- / 7.850
<b>Subtotal: Link-16</b>	- / -	- / 6.100	- / -	- / 15.700	- / -	- / 15.700
<b>Subtotal: Procurement, All Modification Items</b>	- / -	- / 6.100	- / -	- / 15.700	- / -	- / 15.700
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 5.630	- / 0.843	- / -	- / 0.843
ICS-Labor	- / -	- / 0.027	- / 0.028	- / 0.551	- / -	- / 0.551
GFP	- / -	15 / 2.998	- / -	17 / 3.910	- / -	17 / 3.910
SUPPORT-EQUIP	- / -	- / 0.462	- / 0.566	- / -	- / -	- / -
OTHER GOVT	- / -	- / 1.697	- / 2.755	- / 3.440	- / -	- / 3.440
PMA - Contractor Services	- / -	- / 0.650	- / 2.135	- / 1.347	- / -	- / 1.347
PMA - Other Gov't Costs	- / -	- / -	- / 0.050	- / 0.050	- / -	- / 0.050
<b>Subtotal: Support</b>	- / -	15 / 5.834	- / 11.164	17 / 10.141	- / -	17 / 10.141
<b>Installation</b>						
<b>Subtotal: Installation</b>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>11.934</b>	<b>11.164</b>	<b>25.841</b>	<b>0.000</b>	<b>25.841</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 6889 / Bomber Tactical Data link
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Link-16

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: OKC
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Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 23
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Jul 2021	Aug 2021	Feb 2022
Delivery Dates	Jun 2023	Jul 2023	Jan 2024

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 6892 / B-52 Low Cost Improvements

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	7.071	0.000	2.457	8.925	0.000	8.925
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	7.071	0.000	2.457	8.925	0.000	8.925
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>7.071</b>	<b>0.000</b>	<b>2.457</b>	<b>8.925</b>	<b>0.000</b>	<b>8.925</b>

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

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

**Description:**

Low Cost Improvements are efforts which rapidly resolve areas and issues that significantly impact readiness for the entire B-52H weapon system inventory/fleet of 76 aircraft, including support equipment and simulators/trainers. These funds are required for mission essential B-52H improvements to ensure readiness and meet B-52H operational requirements. Current modifications include Integrated Common Pylon Home Light Relocation, Micro-Crypto Interface Device Replacement, Stability Augmentation System Switch Wire Extension, and Bomb bay camera replacement manufacturing and 28 Volt Direct Current (28VDC) Bomb Bay Circuit Breaker Replacement. Additionally, funds will be used for B-52 prototyping efforts.

**B-52 Mission Data Recorder**

Provides permanent crash survivable flight data recorder information to meet MFOQA and other regulatory requirements. Produces digital recordings enhancing aircrew mission reconstruction and weapon release validation.

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

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

**Milestone/Development Status**

B-52 Mission Data Recorder Milestone C 4QFY21

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	2.457	8.925	-	8.925
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>2.457</b>	<b>8.925</b>	<b>0.000</b>	<b>8.925</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B05200 / B-52		<b>Modification Number / Title:</b> 6892 / B-52 Low Cost Improvements	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-52		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0101113F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: MDR</i>						
B Kits						
Recurring						
MDR:EQUIPMENT Group B (Active)	- / -	- / -	5 / 1.700	18 / 8.085	- / -	18 / 8.085
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.700</i>	<i>- / 8.085</i>	<i>- / -</i>	<i>- / 8.085</i>
<i>Subtotal: MDR</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.700</i>	<i>- / 8.085</i>	<i>- / -</i>	<i>- / 8.085</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.700</i>	<i>- / 8.085</i>	<i>- / -</i>	<i>- / 8.085</i>
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
A&AS	- / -	- / -	- / 0.757	- / -	- / -	- / -
OTHER GOVT	- / 17.071	- / -	- / -	- / -	- / -	- / -
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.840	- / -	- / 0.840
<i>Subtotal: Support</i>	<i>- / 17.071</i>	<i>- / 0.000</i>	<i>- / 0.757</i>	<i>- / 0.840</i>	<i>- / -</i>	<i>- / 0.840</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>7.071</b>	<b>0.000</b>	<b>2.457</b>	<b>8.925</b>	<b>0.000</b>	<b>8.925</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1		<b>P-1 Line Item Number / Title:</b> B05200 / B-52	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> MDR			
<b>Manufacturer Information</b>			
Manufacturer Name: 96 RANSS - Calculex and Other KTRs on existing vehicle		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 5	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Aug 2021	Feb 2022
Delivery Dates		Feb 2022	Jul 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 23	

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> B05200 / B-52	<b>Modification Number / Title:</b> 6896 / B-52 VLF/LF Modernization

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	0.000	20.137	0.000	20.137
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	0.000	20.137	0.000	20.137
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>20.137</b>	<b>0.000</b>	<b>20.137</b>

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

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

**Description:**

This program, P-3A Mod 6896, B-52 VLF/LF Modernization, is a new start.

The Very Low Frequency/Low Frequency (VLF/LF) Modernization program provides the B-52 with receive-only, very low frequency, secure, survivable strategic communications via a nuclear hardened terminal, antenna, and human-machine interface. This supports the B-52 requirement for media diversity and the B-52 strategic mission, and ensures nuclear command and control of the B-52 fleet. The current VLF receiver is experiencing supportability concerns and drives a need for more sustainable VLF capability.

VLF/LF program will deliver VLF capability needed for B-52 strategic nuclear command and control. This program provides the framework and flexibility to enable future increments for the remainder of the strategic airborne fleet as well as a bridge to future VLF upgrades to the B-52. The program's acquisition strategy is based on modifying and qualifying an existing terminal. This approach supports timely integration and installation onto the B-52 platform while leveraging existing technology and mature systems to reduce cost and development schedule.

The requirement for the VLF/LF program is to modify 76 B-52 aircraft using Pacific Defense Initiative funding. Currently, the program is funded to modify 51 B-52 aircraft (49 production aircraft + 2 EMD aircraft). Future funding for the remaining fleet will be addressed in future budget cycles.

This modernization effort includes procurement of 49 aircraft kits + 2 EMD kits that will be installed via programmed depot maintenance (PDM) and contract field teams (CFT).

Additionally, funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Funds may be used to purchase long lead components.

**Milestone/Development Status**

Acquisition Strategy Approved Jan 2019.

Preliminary Design Review completed 2QFY21 with Critical Design Review scheduled for 3QFY21.

Developmental and operational test to begin in FY23 followed by Milestone C in 3QFY23.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	20.137	-	20.137
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force			<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1		<b>P-1 Line Item Number / Title:</b> B05200 / B-52		<b>Modification Number / Title:</b> 6896 / B-52 VLF/LF Modernization		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	0.000	0.000	20.137	0.000	20.137

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> B05200 / B-52		<b>Modification Number / Title:</b> 6896 / B-52 VLF/LF Modernization	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> B-52H		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0101113F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0101113F	- / 24.551	- / 10.000	2 / 12.976	- / 8.876	- / -	- / 8.876
<b>Procurement</b>						
<b>Modification Item 1 of 1: VLF/LF</b>						
A Kits						
Recurring						
VLF/LF:INSTALL KITS Group A (Active)	- / -	- / -	- / -	24 / 3.921	- / -	24 / 3.921
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 3.921	- / -	- / 3.921
B Kits						
Recurring						
VLF/LF:EQUIPMENT Group B (Active)	- / -	- / -	- / -	24 / 13.628	- / -	24 / 13.628
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 13.628	- / -	- / 13.628
<i>Subtotal: VLF/LF</i>	- / -	- / -	- / -	- / 17.549	- / -	- / 17.549
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 17.549	- / -	- / 17.549
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.351	- / -	- / 0.351
OTHER GOVT	- / -	- / -	- / -	- / 12.237	- / -	- / 12.237
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 12.588	- / -	- / 12.588
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>20.137</b>	<b>0.000</b>	<b>20.137</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force										<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1					<b>P-1 Line Item Number / Title:</b> B05200 / B-52					<b>Modification Number / Title:</b> 6896 / B-52 VLF/LF Modernization			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> VLF/LF													
<b>Manufacturer Information</b>													
Manufacturer Name: TBD							Manufacturer Location: TBD						
Administrative Leadtime (in Months): 0							Production Leadtime (in Months): 9						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates										Jul 2022			
Delivery Dates										Jul 2023			
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contract Field Team													
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	-	-	0	0	0	0
Out	0	-	-	-	-	-	-	-	-	0	0	0	0
<b>Method of Implementation (Organic):</b> Org/Intermediate										<b>Installation Quantity:</b> 0			

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
H060WH / HH-60W Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207229F **Other Related Program Elements:** 0605229F

**Line Item MDAP/MAIS Code:** 479

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	61.191	-	61.191	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	61.191	-	61.191	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>61.191</b>	-	<b>61.191</b>	-	-	-	-	-	-

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

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

**Description:**

The Combat Rescue Helicopter (HH-60W) program will replace the aging HH-60G. The HH-60W will be capable of employment day or night, in adverse weather, and across the full spectrum of threats to include chemical, biological, radiological, and nuclear. On-board defensive capabilities will permit the HH-60W system to operate with less risk than legacy systems in an increased threat environment. An in-flight air refueling capability will provide an airborne alert capability and extend its combat mission range. The HH-60W system is capable of conducting combat search and rescue airborne mission commander duties. The aircraft will be self-supporting to the maximum extent practical. The HH-60W system may also conduct other collateral missions inherent in its capabilities to conduct Personnel Recovery, such as non-conventional assisted recovery, non-conventional evacuation operations, defense support to civil authorities, civil search and rescue, international aid, emergency aeromedical evacuation, disaster/humanitarian relief, counter-drug activities, support for National Aeronautics and Space Administration flight operations, and insertion/extraction of combat forces.

Funding for this exhibit contained in PE 0207229F.

The primary modification in FY22 is in relation to Distributed Aperture Infrared Counter Measure. Other retrofit efforts may include Global Positioning System Anti-Jam/Anti-Spoof, Degraded Visual Environment system, Integrated Vehicle Health Monitoring System Control, Video Data Link, Blue Force Tracker 2, Mobile User Objective System, Electronic Flight Bags, and Automated Dependent Surveillance Broadcast - In Device. Capability Upgrades and modernization also supports inclusion for mandates, hardware changes for diminishing manufacturing sources, and component obsolescence issues.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft

**P-1 Line Item Number / Title:**  
H060WH / HH-60W Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207229F **Other Related Program Elements:** 0605229F

**Line Item MDAP/MAIS Code:** 479

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / Distributed Aperture Infrared Countermeasures (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 61.191	- / 0.000	- / 61.191
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 61.191</b>	<b>- / -</b>	<b>- / 61.191</b>

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

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

**Justification:**  
This program, P-3A Mod H060W1, Distributed Aperture Infrared Countermeasures, is a new start.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> H060WH / HH-60W Modifications	<b>Modification Number / Title:</b> 1 / Distributed Aperture Infrared Countermeasures

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	0.000	61.191	0.000	61.191
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	0.000	61.191	0.000	61.191
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	-	<b>0.000</b>	<b>0.000</b>	<b>61.191</b>	<b>0.000</b>	<b>61.191</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

This program, P-3A Mod H060W1, Distributed Aperture Infrared Countermeasures, is a new start. Distributed Aperture Infrared Countermeasures (DAIRCM) is a suite of missile warning, laser warning, hostile fire indicator, and infrared countermeasure (IRCM) components designed to defend the aircraft from the threat posed by infrared missiles. This system is currently being configured to the HH-60W. In FY22, we'll begin to order the B-kits (processors, screens, etc.) and FOCA sets to be installed into the aircraft for production. This modification will be installed on the entire fleet of 105 aircraft, currently in production (104 kits funded with APAF).

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

**Milestone/Development Status**

The DAIRCM development began the fourth quarter in FY20. The Helicopter Program Office is continuing technology maturation and risk reduction activities in close sync with the USN DAIRCM Program of Record. A HH-60W DAIRCM preliminary design review is forecasted for Apr 2022 following USN DAIRCM critical design review (CDR) in Dec 2021. A HH-60W DAIRCM CDR is forecasted between the third and fourth quarter of CY2022. The HH-60W DAIRCM Hardware Procurement is scheduled in FY2022.

DAIRCM is projected to begin lab testing August of 2023, to begin ground testing in January of 2024, and to start flight testing between first and second quarter of CY2024.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> H060WH / HH-60W Modifications		<b>Modification Number / Title:</b> 1 / Distributed Aperture Infrared Countermeasures	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HH-60W		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0605229F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> DAIRCM						
A Kits						
Recurring						
DAIRCM:INSTALL KITS Group A (Active)	- / -	- / -	- / -	6 / 10.997	- / -	6 / 10.997
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 10.997</i>	<i>- / -</i>	<i>- / 10.997</i>
B Kits						
Recurring						
DAIRCM:EQUIPMENT Group B (Active)	- / -	- / -	- / -	6 / 50.194	- / -	6 / 50.194
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 50.194</i>	<i>- / -</i>	<i>- / 50.194</i>
<i>Subtotal: DAIRCM</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 61.191</i>	<i>- / -</i>	<i>- / 61.191</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 61.191</i>	<i>- / -</i>	<i>- / 61.191</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>0.000</b>	<b>0.000</b>	<b>61.191</b>	<b>0.000</b>	<b>61.191</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> H060WH / HH-60W Modifications	<b>Modification Number / Title:</b> 1 / Distributed Aperture Infrared Countermeasures

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** DAIRCM

**Manufacturer Information**

Manufacturer Name: Leonardo Digital Retrieval Systems	Manufacturer Location: TBD
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 18

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

**Installation Information**

**Method of Implementation:** Contract Field Team

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401134F	<b>Other Related Program Elements:</b> 0401134F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	440.885	97.093	56.320	57.001	-	57.001	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	440.885	97.093	56.320	57.001	-	57.001	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>440.885</b>	<b>97.093</b>	<b>56.320</b>	<b>57.001</b>	-	<b>57.001</b>	-	-	-	-	-	-

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

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

**Description:**

The Large Aircraft Infrared Countermeasures (LAIRCM) system provides a significantly improved defensive capability for the Department of Defense to counter the proliferating infrared (IR) man-portable air defense systems (MANPADS) missile threats by detecting, tracking, and countering incoming IR missiles. This system is fully autonomous following power-up and consists of Group A aircraft modification kits and Group B hardware. Group B hardware for the LAIRCM system [AN/AQQ-24(V)] currently consists of missile warning sensors; laser transmitter assemblies; a control indicator unit; a system processor, and repeaters, as needed by the platform.

The production program maintains a robust reliability program which results in the incorporation of reliability enhancements improving overall producibility, while gaining the inherent benefit of improved long-term sustainment. There are numerous LAIRCM configurations installed on a variety of aircraft, however, all configurations include a processor and a control indicator unit. Configurations can be differentiated by the type of missile warning sensors and laser transmitter assemblies.

Funding supports efforts that include, but are not limited to, Hardware Procurement (Group A and Group B), Installation, Installation Support, Initial Spares, Support Equipment, Government Furnished Equipment (GFE) and GFE Repairs, Line Replaceable Unit (LRU) Repairs, Interim Contractor Support (ICS), Depot Standup, Systems Engineering and Program Management (SEPM), Failure Reporting and Corrective Analysis Support (FRACAS), Other Government Costs (OGCs), Pre-Planned Product Improvements, Program Management and Administration (PMA) costs, simulators, and data.

Like most programs, LAIRCM faces the challenges associated with resolving Diminishing Manufacturing Sources (DMS) issues and software errors / inefficiencies. The LAIRCM program office seeks to ensure continued production of LAIRCM components for all LAIRCM customers. Funding may be used to address (DMS) issues and software corrections or minor improvements. The LAIRCM DMS program includes all activities associated with monitoring and identifying DMS issues. It also includes all activities required to resolve DMS issues such as: 1) the use of existing material solutions which involves actions to secure availability of existing supply (i.e., life of type buy and extension of production or support); 2) implementing substitutes which includes engineering activities to qualify and implement the identified substitute (i.e., approved part; repair, refurbishment, or reclamation; simple substitute; and complex substitute); and 3) redesign which includes all aspects of engineering and qualification to implement new or highly modified equipment (i.e., development of a new item or source; redesign of a next higher assembly; and redesign of a complex/system replacement).

LAIRCM kit quantities purchased are dependent on the unit cost and/or the installation cost of the kits.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft		<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401134F	<b>Other Related Program Elements:</b> 0401134F
<b>Line Item MDAP/MAIS Code:</b> N/A		

FY 2019 funding totals include \$143.225M for Overseas Contingency Operations.  
 FY 2020 funding totals include \$53.335M for Overseas Contingency Operations.  
 Funding for this exhibit contained in PE 0401134F.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	89.312	54.457	57.001	-	57.001	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.588	0.000	0.000	-	0.000	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.193	1.863	0.000	-	0.000	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>97.093</b>	<b>56.320</b>	<b>57.001</b>	-	<b>57.001</b>	-	-	-	-

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force				<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 1: Strategic Aircraft				<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):		<b>Program Elements for Code B Items:</b> 0401134F		<b>Other Related Program Elements:</b> 0401134F	
<b>Line Item MDAP/MAIS Code:</b> N/A					

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	8629C130 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130 (Capability Improvement)				- / 15.685	- / -	- / -	- / -	- / -	- / -
P-40a***	8629C5 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-5 (Capability Improvement)				- / 44.896	- / 8.177	- / -	- / -	- / -	- / -
P-40a***	8629C17 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-17 (Capability Improvement)				- / 214.894	- / 35.581	- / 9.999	- / 0.000	- / -	- / 0.000
P-40a***	8629CFIN / LAIRCM CFIN (Capability Improvement)				- / -	- / -	- / 7.500	- / -	- / -	- / -
P-3a	1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J (Capability Improvement)			B	- / 165.410	- / 53.335	- / 38.821	- / 57.001	- / 0.000	- / 57.001
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 440.885</b>	<b>- / 97.093</b>	<b>- / 56.320</b>	<b>- / 57.001</b>	<b>- / -</b>	<b>- / 57.001</b>

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

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

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

**Justification:**  
FY 2022 funding resolves LAIRCM Diminishing Manufacturing Source issues and procures LAIRCM kit(s) for C-130J aircraft.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	165.410	53.335	38.821	57.001	0.000	57.001
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	165.410	53.335	38.821	57.001	0.000	57.001
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>165.410</b>	<b>53.335</b>	<b>38.821</b>	<b>57.001</b>	<b>0.000</b>	<b>57.001</b>

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

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

**Description:**

The Large Aircraft Infrared Countermeasures (LAIRCM) system significantly improves defensive capability for the C-130J to counter the proliferating Infrared (IR) man-portable air defense systems (MANPADS) missile threats. The system is fully automatic following power-up. The LAIRCM kit housed behind a turret assembly and functions using missile warning sensors (MWS), two Turret Assemblies, a control indicator unit (CIU), a colorless eye-safe multiband laser, and a system processor to detect, track, and counter incoming IR missiles. As Line Replaceable Units (LRUs) updated, LAIRCM will update with the latest configuration of LRUs. Block 30 specifically improves capability to detect, track, jam, and counter IR missiles.

This program includes costs for the following C-130J aircraft variants: C-130J stretch aircraft, C-130J short aircraft.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to fielding actions such as kit buys, installation and support equipment.

This program includes efforts needed to procure and install retrofit kits for 163 aircraft and deploy the system and support LAIRCM. These efforts include, but not limited to, hardware procurement, installation, installation support, initial spares, support equipment, Government Furnished Equipment (GFE) and GFE repairs, Interim Contractor Support (ICS), mod-line repairs, Systems Engineering and Program Management (SEPM), Failure Reporting and Corrective Analysis Support (FRACAS), Technical Orders, Other Government Costs (OGCs), and Program Management and Administration (PMA) costs. Costs for the identification, review, monitoring, and mitigation of items impacted by diminishing manufacturing sources (DMS) are included. Additionally, "change orders" include NRE/replacement costs for equipment updates to increase reliability, availability, and maintainability of LAIRCM group B components as identified during the fiscal year. To date, 49 Block 20 installs are complete and retrofit to Block 30 of these aircraft will commence in FY34. The remainder of the (143) fleet will begin modification in FY23. Funding used to address (DMS) issues and software corrections. The LAIRCM DMS program includes all activities associated with monitoring and identifying issues and addressing needed software corrections. This project contains procurement funding for Program Management Administration (PMA) activities.

The cost element "OTHER GOVT" in this P3A includes costs for DMS, these costs are explained below.

Like most programs, LAIRCM faces the challenges associated with resolving Diminishing Manufacturing Sources (DMS) issues and software errors/inefficiencies. The LAIRCM program office seeks to ensure continued production of LAIRCM components for all LAIRCM customers. Funding may be used to address (DMS) issues and software corrections or minor improvements. The LAIRCM DMS program includes all activities associated with monitoring and identifying DMS issues. It also includes all activities required to resolve DMS issues such as: 1) the use of existing material solutions which involves actions to secure availability of existing supply (i.e., life of type buy and extension of production or support); 2) implementing substitutes which includes engineering activities to qualify and implement the identified substitute (i.e., approved part; repair, refurbishment, or reclamation; simple substitute; and complex substitute); and 3) redesign which includes all aspects of engineering and qualification to implement new or highly modified equipment (i.e., development of a new item or source; redesign of a next higher assembly; and redesign of a complex/system replacement).

Milestone/Development Status

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>

Development is complete.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	53.335	38.821	57.001	-	57.001
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	53.335	38.821	57.001	0.000	57.001

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures			<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> C130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<b>Modification Item 1 of 3: Basic Js (Block 20)</b>							
A Kits							
Recurring							
Basic Js (Block 20):INSTALL KITS Group A (Active)	32 / 41.386	- / -	- / -	- / -	- / -	- / -	
Basic Js (Block 20):INSTALL KITS Group A (Guard)	2 / 3.964	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 45.350	- / -	- / -	- / -	- / -	- / -	
B Kits							
Recurring							
Basic Js (Block 20):EQUIPMENT Group B (Active)	32 / 13.275	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 13.275	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Basic Js (Block 20)</i>	- / 58.625	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 2 of 3: Basic Js (Block 30)</b>							
A Kits							
Recurring							
Basic Js (Block 30):INSTALL KITS Group A (Active)	2 / 3.916	18 / 15.000	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 3.916	- / 15.000	- / -	- / -	- / -	- / -	
B Kits							
Recurring							
Basic Js (Block 30):EQUIPMENT Group B (Active)	8 / 13.218	12 / 32.365	- / -	1 / 2.419	- / -	1 / 2.419	
<i>Subtotal: Recurring</i>	- / 13.218	- / 32.365	- / -	- / 2.419	- / -	- / 2.419	
<i>Subtotal: Basic Js (Block 30)</i>	- / 17.134	- / 47.365	- / -	- / 2.419	- / -	- / 2.419	
<b>Modification Item 3 of 3: EC-130Js</b>							
A Kits							
Recurring							
EC-130Js:INSTALL KITS Group A (Active)	5 / 11.900	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 11.900	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: EC-130Js</i>	- / 11.900	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 87.659	- / 47.365	- / -	- / 2.419	- / -	- / 2.419	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 5.672	- / -	- / -	- / -	- / -	- / -	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1			<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures		<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0401134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
GROUP B: TOTAL NONRECURRING	- / 24.442	- / 11.145	- / -	- / -	- / -	- / -
Data	- / 0.753	- / 0.100	- / 0.100	- / -	- / -	- / -
SIM/TRAINER	- / -	- / -	- / 5.000	- / -	- / -	- / -
SUPPORT-EQUIP	- / 1.614	- / -	- / 0.925	- / -	- / -	- / -
Change Orders	- / 2.283	- / -	- / -	- / -	- / -	- / -
ICS-Labor	- / 2.551	- / 0.208	- / 0.918	- / -	- / -	- / -
PMA - Contractor Services	- / 0.787	- / 0.423	- / 6.801	- / -	- / -	- / -
OTHER GOVT	- / 15.693	- / 2.795	- / 4.993	- / 52.082	- / -	- / 52.082
PMA - Other Gov't Costs	- / 4.258	- / 1.299	- / 1.625	- / 2.500	- / -	- / 2.500
<i>Subtotal: Support</i>	<i>- / 58.053</i>	<i>- / 5.970</i>	<i>- / 20.362</i>	<i>- / 54.582</i>	<i>- / -</i>	<i>- / 54.582</i>
<b>Installation</b>						
<i>Modification Item 1 of 3:</i> Basic Js (Block 20)	34 / 13.211	- / -	- / -	- / -	- / -	- / -
<i>Modification Item 2 of 3:</i> Basic Js (Block 30)	2 / 0.718	- / -	18 / 18.459	- / -	- / -	- / -
<i>Modification Item 3 of 3:</i> EC-130Js	5 / 5.769	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>41 / 19.698</i>	<i>- / -</i>	<i>18 / 18.459</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>165.410</b>	<b>53.335</b>	<b>38.821</b>	<b>57.001</b>	<b>0.000</b>	<b>57.001</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 3:** Basic Js (Block 20)

**Manufacturer Information**

Manufacturer Name: NORTHROP GRUMMAN	Manufacturer Location: ROLLING MEADOWS
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 16

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 13.211	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	34 / 13.211	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	34	-	-	-	-	-	-	-	-	-	-	-
Out	34	-	-	-	-	-	-	-	-	-	-	-



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 3:** Basic Js (Block 30)

**Manufacturer Information**

Manufacturer Name: Northrop Grumman		Manufacturer Location: ROLLING MEADOWS	
Administrative Leadtime (in Months): 21		Production Leadtime (in Months): 28	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jul 2021		
Delivery Dates	Nov 2023		

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 0.718	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	18 / 18.459	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 0.718	- / -	18 / 18.459	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	2	-	-	-	-	-	-	-	-	-	-	-	-
Out	2	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 1	<b>P-1 Line Item Number / Title:</b> LAIRCM / Large Aircraft Infrared Countermeasures	<b>Modification Number / Title:</b> 1 / LARGE AIRCRAFT INFRARED COUNTERMEASURES C-130J

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 3 of 3:** EC-130Js

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Rolling Meadows
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 16

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 5.769	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 5.769	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	5	-	-	-	-	-	-	-	-	-	-	-	-
Out	5	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> A01000 / A-10
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207131F	<b>Other Related Program Elements:</b> 0207131F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	318.397	125.788	135.793	83.621	-	83.621	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	318.397	125.788	135.793	83.621	-	83.621	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>318.397</b>	<b>125.788</b>	<b>135.793</b>	<b>83.621</b>	-	<b>83.621</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds modifications and upgrades to the A-10 weapon system to ensure it remains combat effective. The A-10 is a twin engine, single seat aircraft capable of delivering a full range of air-to-ground munitions as well as self-defense air-to-air missiles. The A-10 provides persistent, effective and precise Close Air Support, Interdiction, Forward Air Controller (airborne), Combat Search & Rescue and Strike Control & Reconnaissance. Funding for this exhibit is contained in PE 0207131F.

Wing Replacement Program (ATTACK) procures new wings to enable the A-10 Fleet to fly and fight into 2030+. A new wing procurement effort will provide flexibility in fleet size options and provides resiliency in the existing fleet.

Helmet Mounted Cueing System (HMCS) Interim Contractor Support (ICS) is needed to repair critical components to keep units fully operational. The HMCS program is jointly managed by the A-10 and F-16 System Program Offices and provides extant A-10Cs and F-16C+ Block 30/32 aircraft with a Helmet Mounted Integrated Targeting (HMIT) System that will provide off-boresight cueing, targeting, and situational awareness capability.

ARC-210 replaces current ARC-210 Gen 4 radio(s) with Gen 6 to insure crypto compliance, replaces current Radio Control Unit (RCU) with C-12561B (required update for Gen 6), maintains same functionality of the Gen 4, continues using 1553 Bus controller vice an Ethernet connection, and replaces ARC-164 with ARC-210 Gen 4 (Suite 11). Installs will be either Contract Field Team (CFT) or Depot Speed Line (DSL) which is organic. Procurement funds are for the hardware purchases for the fleet FY20-22. Procurement funds after that will be used for installs. Suite 11 is scheduled to field 4QFY22. ARC-210 Gen 6 installs will follow soon after. Currently pursuing an integration contract via RDT&E dollars.

2ND Gigabit Ethernet Switch (2GES) supports future avionics modernizations. Predecessor to 3 Dimensional Audio (3DA), High Resolution Display (HRDS), and ARC-210 programs.

A-10 High Resolution Display System (HRDS) is a technology enabler providing a platform for enhanced tactical applications that will function as a Primary Flight Display and provide Hi Resolution video from Advanced Targeting Pods. The A-10 HRDS is a true next-gen digital interface that will replace legacy analog flight instruments and provide higher resolution video signals to improve the pilot's ability to find, fix, track, target and engage ground targets and threats while reducing pilot workload.

3-Dimensional Audio (3DA) improves the spatial, battle space, and situational awareness (SA) of A-10C pilots through the addition of a digital intercom system upgrade, active and electronic noise reduction, three-dimensional spatial separation for up to four audio channels, and three-dimensional auditory threat cueing from the aircraft missile warning system and radar warning receiver.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> A01000 / A-10
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207131F	<b>Other Related Program Elements:</b> 0207131F
<b>Line Item MDAP/MAIS Code:</b> N/A		

Small Diameter Bomb-1 (SDB-1) requires support equipment (SE) in addition to the integration effort. SE will be used by each A-10C installation to equip and train our maintenance personnel on SDB-I. SE includes Bomb Rack Unit - 61 (BRU-61) Trainers, GBU-39 Trainers, Bomb Slings, Common Munitions Built-in-Test Equipment (CMBRE), CMBRE Adapters, BRU-61 Tacticals, Light Weight Lift Bar and other SE determined by ACC.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	66.824	102.116	59.154	0.000	59.154	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	38.658	19.891	13.178	-	13.178	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	20.306	13.786	11.289	-	11.289	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>125.788</b>	<b>135.793</b>	<b>83.621</b>	<b>0.000</b>	<b>83.621</b>	-	-	-	-

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
A01000 / A-10

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207131F **Other Related Program Elements:** 0207131F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	7856 / MODE S/5 (Capability Improvement)				- / 14.520	- / 0.000	- / 0.980	- / -	- / -	- / -
P-40a***	9804 / A-10 Wing Replacement Program (Reliability & Maintainability)				- / 268.306	- / 93.755	- / 99.863	- / 0.044	- / -	- / 0.044
P-40a***	9806 / A-10 Helmet Mounted Cueing System (Capability Improvement)				- / 0.890	- / 1.170	- / 1.300	- / 3.004	- / -	- / 3.004
P-40a***	9816 / A-10 Conversion Fuel Tanks (Capability Improvement)				- / 8.700	- / -	- / -	- / -	- / -	- / -
P-40a***	9832 / 2ND GIGABIT ETHERNET SWITCH (2GES) (Capability Improvement)				- / -	- / 5.000	- / 4.800	- / 2.900	- / -	- / 2.900
P-40a***	9839 / SDB-1 (Capability Improvement)				- / -	- / 8.000	- / -	- / 4.400	- / -	- / 4.400
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / -	- / -	- / -	- / 2.000	- / -	- / 2.000
P-3a	9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS) (Reliability & Maintainability)			B	- / 25.981	- / 2.500	- / 4.700	- / 9.500	- / 0.000	- / 9.500
P-3a	9831 / ARC-210 (Capability Improvement)			B	- / 0.000	- / 8.600	- / 18.350	- / 32.300	- / 0.000	- / 32.300
P-3a	9834 / A-10 High Resolution Display System (HRDS) (Capability Improvement)			B	- / 0.000	- / 5.763	- / 0.500	- / 20.173	- / 0.000	- / 20.173
P-3a	9836 / 3-Dimensional Audio (3DA) (Capability Improvement)			B	- / 0.000	- / 1.000	- / 5.300	- / 9.300	- / 0.000	- / 9.300
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 318.397</b>	<b>- / 125.788</b>	<b>- / 135.793</b>	<b>- / 83.621</b>	<b>- / -</b>	<b>- / 83.621</b>

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

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

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

**Justification:**  
This program, P-3A Mod 9839, SDB-1, is a new start.

This line item funds modifications and upgrades to the A-10 weapon system to ensure it remains combat effective. The A-10 is a twin engine, single seat aircraft capable of delivering a full range of air-to-ground munitions as well as self-defense air-to-air missiles. The A-10 provides persistent, effective and precise Close Air Support, Interdiction, Forward Air Controller (airborne), Combat Search & Rescue and Strike Control & Reconnaissance. Funding for this exhibit is contained in PE 0207131F.

Wing Replacement Program (ATTACK) procures new wings to enable the A-10 Fleet to fly and fight into 2030+. A new wing procurement effort will provide flexibility in fleet size options and provides resiliency in the existing fleet.

Helmet Mounted Cueing System (HMCS) Interim Contractor Support (ICS) is needed to repair critical components to keep units fully operational. The HMCS program is jointly managed by the A-10 and F-16 System Program Offices and provides extant A-10Cs and F-16C+ Block 30/32 aircraft with a Helmet Mounted Integrated Targeting (HMIT) System that will provide off-boresight cueing, targeting, and situational awareness capability.

ARC-210 replaces current ARC-210 Gen 4 radio(s) with Gen 6 to insure crypto compliance, replaces current Radio Control Unit (RCU) with C-12561B (required update for Gen 6), maintains same functionality of the Gen 4, continues using 1553 Bus controller vice an Ethernet connection, and replaces ARC-164 with ARC-210 Gen 4 (Suite 11). Installs will be either Contract Field Team (CFT) or Depot Speed Line (DSL)

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> A01000 / A-10
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207131F	<b>Other Related Program Elements:</b> 0207131F
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>which is organic. Procurement funds are for the hardware purchases for the fleet FY20-22. Procurement funds after that will be used for installs. Suite 11 is scheduled to field 3QFY22. ARC-210 Gen 6 installs will follow soon after. Currently pursuing an integration contract via RDT&amp;E dollars.</p> <p>2ND Gigabit Ethernet Switch (2GES) supports future avionics modernizations. Predecessor to 3 Dimensional Audio (3DA), High Resolution Display (HRDS), and ARC-210 programs.</p> <p>A-10 High Resolution Display System (HRDS) is a technology enabler providing a platform for enhanced tactical applications that will function as a Primary Flight Display and provide Hi Resolution video from Advanced Targeting Pods. The A-10 HRDS is a true next-gen digital interface that will replace legacy analog flight instruments and provide higher resolution video signals to improve the pilot's ability to find, fix, track, target and engage ground targets and threats while reducing pilot workload.</p> <p>3-Dimensional Audio (3DA) improves the spatial, battle space, and situational awareness (SA) of A-10C pilots through the addition of a digital intercom system upgrade, active and electronic noise reduction, three-dimensional spatial separation for up to four audio channels, and three-dimensional auditory threat cueing from the aircraft missile warning system and radar warning receiver.</p> <p>Small Diameter Bomb-1 (SDB-1) requires support equipment (SE) in addition to the integration effort. SE will be used by each A-10C installation to equip and train our maintenance personnel on SDB-I. SE includes Bomb Rack Unit - 61 (BRU-61) Trainers, GBU-39 Trainers, Bomb Slings, Common Munitions Built-in-Test Equipment (CMBRE), CMBRE Adapters, BRU-61 Tacticals, Light Weight Lift Bar and other SE determined by ACC.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	25.981	2.500	4.700	9.500	0.000	9.500
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	25.981	2.500	4.700	9.500	0.000	9.500
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>25.981</b>	<b>2.500</b>	<b>4.700</b>	<b>9.500</b>	<b>0.000</b>	<b>9.500</b>

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

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

**Description:**

The Onboard Oxygen Generating System (OBOGS) mitigates the constraints of liquid oxygen by utilizing engine bleed air as the source of breathing oxygen and eliminates the maintenance costs and sortie delays the liquid oxygen system incurs. Due to its cryogenic nature, liquid oxygen systems require special handling precautions which adversely impact maintenance costs and increase downtime between sorties.

All OBOGS kits were purchased with approved exception waiver. All remaining efforts are for installs, and the schedule is based on current approved funding through the FYDP.

All kits were purchased in FY19, supporting fleet of 281-prior to planned reduction to 218.

There are 2 kits, an "A Kit and a "B kit. 1 of each is required per install.

We purchased 233 A Kits and 254 B Kits. (Total of 487 kits)

52 A-10s were previously modified to OBOGS

281 (fleet)-52 (previous) 229 + 2 trainers 231

233 A Kits includes 2 spares; 254 B Kits includes 23 spares (provided to supply)

Mitigation for fleet reduction: additional kit components will be provided as spares

Milestone/Development Status

N/A

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	1.690	2.853	5.250	-	5.250
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	0.530	1.153	2.600	-	2.600
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.280	0.694	1.650	-	1.650

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	2.500	4.700	9.500	0.000	9.500

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> A01000 / A-10			<b>Modification Number / Title:</b> 9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> A-10			<b>Modification Type:</b> Reliability & Maintainability			<b>Related RDT&amp;E PEs:</b> 0207131F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<b>Modification Item 1 of 2: A/B Kits</b>							
A Kits							
Recurring							
A/B Kits:INSTALL KITS Group A (Active)	259 / 10.926	- / -	- / -	- / -	- / -	- / -	
A/B Kits:INSTALL KITS Group A (Guard)	138 / 5.822	- / -	- / -	- / -	- / -	- / -	
A/B Kits:INSTALL KITS Group A (Reserve)	90 / 3.797	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 20.545	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: A/B Kits</i>	- / 20.545	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 2 of 2: COMMON: A Kit</b>							
B Kits							
Recurring							
COMMON: A Kit:EQUIPMENT Group B (Active)	- / 0.000	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: COMMON: A Kit</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 20.545	- / -	- / -	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
PMA - Other Gov't Costs	- / -	- / 0.060	- / 0.280	- / 1.000	- / -	- / 1.000	
SUPPORT-EQUIP	- / -	- / 0.600	- / 0.500	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / -	- / 0.660	- / 0.780	- / 1.000	- / -	- / 1.000	
<b>Installation</b>							
<b>Modification Item 1 of 2: A/B Kits</b>							
A/B Kits	68 / 5.436	26 / 1.840	46 / 3.920	100 / 8.500	- / -	100 / 8.500	
<i>Subtotal: Installation</i>	68 / 5.436	26 / 1.840	46 / 3.920	100 / 8.500	- / -	100 / 8.500	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>25.981</b>	<b>2.500</b>	<b>4.700</b>	<b>9.500</b>	<b>0.000</b>	<b>9.500</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** A/B Kits

**Manufacturer Information**

Manufacturer Name: Cobham	Manufacturer Location: Davenport, Iowa
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	68 / 5.436	26 / 1.840	46 / 3.920	100 / 8.500	- / -	100 / 8.500
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	68 / 5.436	26 / 1.840	46 / 3.920	100 / 8.500	- / -	100 / 8.500

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	68	8	6	6	6	12	12	12	10	25	25	25	25
Out	54	14	8	6	6	6	12	12	12	10	25	25	25

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> A01000 / A-10	
		<b>Modification Number / Title:</b> 9601 / ONBOARD OXYGEN GENERATING SYSTEM (OBOGS)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> COMMON: A Kit			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9831 / ARC-210

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	8.600	18.350	32.300	0.000	32.300
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	8.600	18.350	32.300	0.000	32.300
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>8.600</b>	<b>18.350</b>	<b>32.300</b>	<b>0.000</b>	<b>32.300</b>

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

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

**Description:**

Continued modernization efforts require the replacement of legacy communication systems in the A-10C. These systems are logistically unsupported and vulnerable to emerging cyber threats due to the lack of updates. A National Security Agency (NSA) mandate exists that requires updates/compliance to current cyber security threats. Also, current communication radios in the jet are not setup to handle all necessary frequencies and networks required for military communications over the next 10 years. Active duty is tasked to pay for the fleet upgrade including AFRC/ANG aircraft.

Replace current ARC-210 Gen 4 radio(s) with Gen 6 to insure crypto compliance. Replace current Radio Control Unit (RCU) with C-12561B (required update for Gen 6). Maintain same functionality of the Gen 4. Continue using 1553 Bus controller vice an Ethernet connection. Replace ARC-164 with ARC-210 Gen 4 (Suite 12). Replace the current HPA/LNA with a Mobile User Objective System (MUOS) compatible HPA/LNA. Installs will be primarily DSL (Depot Speed Line/Organic). Suite 11 scheduled to field 4th Qtr FY22. ARC-210 Gen 6 installs will follow soon after. Currently under contract for RDT&E dollars.

There are three increments for the ARC-210 program; installation of two Gen 6 Radios and RCU, moving existing Gen 4 radio to the third radio position, and installation of a new HPA/LNA. For the first and third increment both A and B kits need to be bought but for the second increment only A kits need to be bought. This means that every jet would need at least 5 kits purchased. There are a certain number of ACC jets that would need a modification done prior to being able to install two Gen 6 radios so those jets would require an additional kit.

Requirement and funding layout updated to reflect 218 TAI (Total Aircraft Inventory).

Milestone/Development Status

Development Complete

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	9.020	12.083	-	12.083
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	5.092	7.488	10.578	-	10.578
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	3.508	1.842	9.639	-	9.639
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force			<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> A01000 / A-10		<b>Modification Number / Title:</b> 9831 / ARC-210		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	8.600	18.350	32.300	0.000	32.300

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> A01000 / A-10		<b>Modification Number / Title:</b> 9831 / ARC-210	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> A-10C		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207131F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Equipment						
B Kits						
Recurring						
Equipment:EQUIPMENT Group B (Active)	- / -	- / -	108 / 9.020	113 / 9.383	- / -	113 / 9.383
Equipment:EQUIPMENT Group B (Guard)	- / -	28 / 5.092	107 / 7.488	112 / 9.203	- / -	112 / 9.203
Equipment:EQUIPMENT Group B (Reserve)	- / -	19 / 3.508	36 / 1.842	93 / 8.764	- / -	93 / 8.764
<i>Subtotal: Recurring</i>	- / -	- / 8.600	- / 18.350	- / 27.350	- / -	- / 27.350
<i>Subtotal: Equipment</i>	- / -	- / 8.600	- / 18.350	- / 27.350	- / -	- / 27.350
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 8.600	- / 18.350	- / 27.350	- / -	- / 27.350
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Equipment						
	- / -	- / -	- / -	198 / 4.950	- / -	198 / 4.950
<i>Subtotal: Installation</i>	- / -	- / -	- / -	198 / 4.950	- / -	198 / 4.950
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>8.600</b>	<b>18.350</b>	<b>32.300</b>	<b>0.000</b>	<b>32.300</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9831 / ARC-210

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Equipment

**Manufacturer Information**

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

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

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	47 / 1.175	- / -	47 / 1.175
FY 2021	- / -	- / -	- / -	151 / 3.775	- / -	151 / 3.775
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	198 / 4.950	- / -	198 / 4.950

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	-	-	99	99
Out	0	-	-	-	-	-	-	-	-	-	-	-	99

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9834 / A-10 High Resolution Display System (HRDS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	5.763	0.500	20.173	0.000	20.173
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	5.763	0.500	20.173	0.000	20.173
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>5.763</b>	<b>0.500</b>	<b>20.173</b>	<b>0.000</b>	<b>20.173</b>

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

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

**Description:**

The A-10 High Resolution Display System is a technology enabler providing a platform for enhanced tactical applications which will function as a Primary Flight Display and provide Hi Resolution video from Advanced Targeting Pods. The A-10 HRDS is a true next-gen digital interface that will replace legacy analog flight instruments and provide higher resolution video signals to improve the pilot's ability to find, fix, track, target and engage ground targets and threats while reducing pilot workload.

Requirements: AF Form 1067 approved 11 May 2016 to equip 116 ARC aircraft; ACC A-10 HRDS 1067 in development.

Requirement and funding layout updated to reflect 218 TAI (Total Aircraft Inventory).

Milestone/Development Status

Development Complete

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	5.763	0.500	20.173	0.000	20.173
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>5.763</b>	<b>0.500</b>	<b>20.173</b>	<b>0.000</b>	<b>20.173</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> A01000 / A-10			<b>Modification Number / Title:</b> 9834 / A-10 High Resolution Display System (HRDS)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> A-10C		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207131F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Equipment (3)							
B Kits							
Recurring							
Equipment: EQUIPMENT Group B (Active)	- / -	- / -	1 / 0.263	79 / 19.149	- / -	79 / 19.149	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.263	- / 19.149	- / -	- / 19.149	
<i>Subtotal: Equipment (3)</i>	- / -	- / -	- / 0.263	- / 19.149	- / -	- / 19.149	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 0.263	- / 19.149	- / -	- / 19.149	
<b>Support (All Modification Items)</b>							
PMA - Other Gov't Costs	- / -	- / -	- / 0.077	- / 0.524	- / -	- / 0.524	
OTHER GOVT	- / -	- / 0.763	- / 0.160	- / 0.500	- / -	- / 0.500	
Data	- / -	- / 5.000	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / -	- / 5.763	- / 0.237	- / 1.024	- / -	- / 1.024	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Equipment (3)							
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>5.763</b>	<b>0.500</b>	<b>20.173</b>	<b>0.000</b>	<b>20.173</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9834 / A-10 High Resolution Display System (HRDS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Equipment (3)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 11

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Jan 2021	Jun 2022
Delivery Dates		Dec 2021	May 2023

**Installation Information**

**Method of Implementation:** Depot Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9836 / 3-Dimensional Audio (3DA)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	1.000	5.300	9.300	0.000	9.300
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	1.000	5.300	9.300	0.000	9.300
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>1.000</b>	<b>5.300</b>	<b>9.300</b>	<b>0.000</b>	<b>9.300</b>

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

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

**Description:**

The purpose of this modification is to improve the spatial, battle space, and situational awareness (SA) of A-10C pilots through the addition of a digital intercom system upgrade, active and electronic noise reduction, three-dimensional spatial separation for up to four audio channels, and three-dimensional auditory threat cueing from the aircraft missile warning system and radar warning receiver. The A-10C has received several upgrades adding additional inputs for the pilot to process; however, there is no aural component to these upgrades, meaning that unless the pilot is looking at the data source, he will not receive the data. Also, the pilot could have several auditory sources providing input at the same time. This system will supplement other situational awareness aids in the A-10C by providing an aural component to the suite of capabilities already present in the aircraft.

169 kits required to equip 144 ACC aircraft with 25 kits as spares.

Requirement and funding layout updated to reflect 218 TAI (Total Aircraft Inventory).

Milestone/Development Status

Development Complete

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	1.000	5.300	9.300	-	9.300
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	<b>1.000</b>	<b>5.300</b>	<b>9.300</b>	<b>0.000</b>	<b>9.300</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> A01000 / A-10		<b>Modification Number / Title:</b> 9836 / 3-Dimensional Audio (3DA)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> A-10C		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207131F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Equipment (4)						
B Kits						
Recurring						
Equipment:EQUIPMENT Group B (Active)	- / -	10 / 0.750	51 / 3.500	108 / 5.438	- / -	108 / 5.438
<i>Subtotal: Recurring</i>	- / -	- / 0.750	- / 3.500	- / 5.438	- / -	- / 5.438
<i>Subtotal: Equipment (4)</i>	- / -	- / 0.750	- / 3.500	- / 5.438	- / -	- / 5.438
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 0.750	- / 3.500	- / 5.438	- / -	- / 5.438
<b>Support (All Modification Items)</b>						
ICS-Labor	- / -	- / -	- / 0.040	- / 0.054	- / -	- / 0.054
PMA - Other Gov't Costs	- / -	- / 0.250	- / 0.560	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / -	- / 0.250	- / 0.600	- / 0.054	- / -	- / 0.054
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Equipment (4)						
<i>Subtotal: Installation</i>	- / -	- / -	10 / 1.200	40 / 3.808	- / -	40 / 3.808
<i>Subtotal: Installation</i>	- / -	- / -	10 / 1.200	40 / 3.808	- / -	40 / 3.808
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>1.000</b>	<b>5.300</b>	<b>9.300</b>	<b>0.000</b>	<b>9.300</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> A01000 / A-10	<b>Modification Number / Title:</b> 9836 / 3-Dimensional Audio (3DA)
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Equipment (4)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 11

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Nov 2019	Nov 2020	Nov 2021
Delivery Dates	Oct 2020	Oct 2021	Oct 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	10 / 1.200	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	40 / 3.808	- / -	40 / 3.808
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	10 / 1.200	40 / 3.808	- / -	40 / 3.808

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	2	2	3	3	10	10	10	10
Out	0	-	-	-	-	2	2	3	3	10	10	10

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG
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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: 0207610F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	68.027	29.645	68.955	-	68.955	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	68.027	29.645	68.955	-	68.955	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>0.000</b>	<b>68.027</b>	<b>29.645</b>	<b>68.955</b>	<b>-</b>	<b>68.955</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

Battlefield Airborne Communication Node (BACN) provides a Combatant Commander (CCDR) flexible, long-endurance, responsive airborne communications capability. BACN provides a dedicated airborne capability to conduct voice bridging/translation, Tactical Data Link (TDL) gateway, and TDL relay functions for beyond-line-of-sight (BLOS) data communications. Includes integration of BACN payload and ground stations, Survivability UON - Military GPS (MIL GPS), P-Y and M Code Military GPS, Protected Tactical Waveform (PTW), High Capacity Backbone (HCB), Identify Friend or Foe (IFF), Supplemental Type Certs (STC), and Electronic Flight Bags (EFB).

Funding for this exhibit contained in PE 0207610F and PE 0207238F.

BACN green platform procurement and integration activities support out of P-1 Line Item #99 E011A0/E-11A BACN in PE: 0207238F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense mission, domestic emergency responses, and providing military support to civilian authorities.

The E-11As require Rapidly Deployable Aircraft Kits that include the minimum number of maintenance equipment and spares required for the aircraft to operate anywhere around the globe for a minimum of 30 days.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
E011A0 / E-11 BACN/HAG

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207610F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / E-11 Mods (Other)		A		- / 0.000	- / 68.027	- / 29.645	- / 68.955	- / 0.000	- / 68.955
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 0.000</b>	<b>- / 68.027</b>	<b>- / 29.645</b>	<b>- / 68.955</b>	<b>- / -</b>	<b>- / 68.955</b>

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

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

**Justification:**  
BACN includes the payload, its host platforms, and associated ground systems. The program is currently in the Operations and Support (O&S) Phase of the Life Cycle Management System. As requirements emerge for new hardware and software capabilities that improve system performance, external time references, interoperability and open mission system technologies, BACN will host the integration of these and future emerging technologies, such as High Capacity Backbone (HCB), Supplemental Type Certs (STC), and Protected Tactical Waveform (PTW).

Funding will be used to address Diminishing Manufacturing Sources (DMS) Issues. This may include modifications required for enhanced capability and improvements to system reliability and maintainability. Safety of flight considerations, including but not limited to, performance, aircraft structural integrity, availability, and continuity of service requirements for long range reference, local area reference, and landing/terminal reference.

This effort includes Military GPS, advanced navigation systems and any additional mandates levied on the BACN system and platforms. Funding will also be used for fulfillment of requirements in support of alteration, conversion, modernization, and transition to a normalized Program of Record.

Transition to BACN Program of Record/normalized program requires additional BACN aircraft platforms to meet the service retained capability requirements and those of Combatant Commanders as needs emerge in multiple AOR's. This will include, but not be limited to, standardization of avionics baseline and the production of all Supplemental Type Certificates of the most up to date configurations of the fleet.

In order to fulfill a worldwide rapidly deployable requirement, the E-11As require Rapidly Deployable Aircraft Kits. These kits will include the minimum number of maintenance equipment and spares required for the aircraft to operate anywhere around the globe for a minimum of 30 days.



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	<b>Modification Number / Title:</b> 1 / E-11 Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	68.027	29.645	68.955	0.000	68.955
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	68.027	29.645	68.955	0.000	68.955
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>68.027</b>	<b>29.645</b>	<b>68.955</b>	<b>0.000</b>	<b>68.955</b>

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

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

**Description:**

Battlefield Airborne Communication Node (BACN) provides a Combatant Commander (CCDR) flexible, long-endurance, responsive airborne communications capability. BACN provides a dedicated airborne capability to conduct voice bridging/translation, Tactical Data Link (TDL) gateway, emerging capabilities, and TDL relay functions for beyond-line-of-sight (BLOS) data communications.

Funding will support procurement of aircraft engines to increase current BACN fleet service life expectancy and availability. Funding supports procurement of platform provisioning supplies which is necessary to execute the current BACN product support strategy involving a transition from Contractor Operations and Maintenance to Government Operations and Maintenance. Funding will also enable procurement of unique Platform support equipment required for transition from a JUON capability stationed OCONUS to a BACN Program of Record permanent base.

**Milestone/Development Status**

BACN includes the payload, its host platforms, and associated ground systems. The program is currently in the Operations and Support (O&S) Phase of the Life Cycle Management System. As requirements emerge for new hardware and software capabilities that improve system performance such as, external time references, interoperability and open mission system technologies. BACN will host the integration of these and future communication technologies. Funding will be used to address Diminishing Manufacturing Sources (DMS) Issues. This may include modifications required for enhanced capability and improvements to system reliability and maintainability. Safety of flight considerations, including but not limited to, performance, aircraft structural integrity, availability, and continuity of service requirements for long range reference, local area reference, and landing/terminal reference. This effort includes Military GPS, advanced navigation systems and any additional mandates levied on the BACN system and platforms. Funding will also be used for fulfillment of requirements in support of alteration, conversion, modernization, and transition to a normalized Program of Record. Transition to BACN Program of Record will require additional BACN aircraft platforms to meet the service retained capability requirements of Combatant Commanders needs emerge in multiple AOR's. This will include, but not be limited to, standardization of avionics baseline and the production of all Supplemental Type Certificates of the most up to date configurations of the fleet.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG		<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-11A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0207610F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 6: BACN Aircraft INSTALL KITS</b>						
A Kits						
Recurring						
BACN Aircraft INSTALL KITS:INSTALL KITS Group A (Active)	- / -	- / -	- / -	1 / 43.645	- / -	1 / 43.645
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 43.645	- / -	- / 43.645
<i>Subtotal: BACN Aircraft INSTALL KITS</i>	- / -	- / -	- / -	- / 43.645	- / -	- / 43.645
<b>Modification Item 2 of 6: BACN Payload and Platform Support Equipment</b>						
A Kits						
Recurring						
BACN Payload and Platform Support Equipment:INSTALL KITS Group A (Active)	- / -	1 / 10.000	1 / 10.591	2 / 15.468	- / -	2 / 15.468
<i>Subtotal: Recurring</i>	- / -	- / 10.000	- / 10.591	- / 15.468	- / -	- / 15.468
<i>Subtotal: BACN Payload and Platform Support Equipment</i>	- / -	- / 10.000	- / 10.591	- / 15.468	- / -	- / 15.468
<b>Modification Item 3 of 6: E-11A Survivability</b>						
A Kits						
Recurring						
E-11A Survivability:INSTALL KITS Group A (Active)	- / -	4 / 13.903	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 13.903	- / -	- / -	- / -	- / -
<i>Subtotal: E-11A Survivability</i>	- / -	- / 13.903	- / -	- / -	- / -	- / -
<b>Modification Item 4 of 6: Engines</b>						
A Kits						
Recurring						
Engines:INSTALL KITS Group A (Active)	- / -	4 / 40.194	2 / 19.054	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 40.194	- / 19.054	- / -	- / -	- / -
<i>Subtotal: Engines</i>	- / -	- / 40.194	- / 19.054	- / -	- / -	- / -
<b>Modification Item 5 of 6: Low Cost Mods</b>						
A Kits						
Recurring						
Low Cost Mods:INSTALL KITS Group A (Active)	- / -	1 / 1.463	- / -	1 / 1.930	- / -	1 / 1.930

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG			<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> E-11A			<b>Modification Type:</b> Other			<b>Related RDT&amp;E PEs:</b> 0207610F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Recurring</i>	- / -	- / 1.463	- / -	- / 1.930	- / -	- / 1.930	
<i>Subtotal: Low Cost Mods</i>	- / -	- / 1.463	- / -	- / 1.930	- / -	- / 1.930	
<b>Modification Item 6 of 6:</b> Service Bulletins							
A Kits							
Recurring							
Service Bulletins:INSTALL KITS Group A (Active)	- / -	- / -	- / -	1 / 4.800	- / -	1 / 4.800	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 4.800	- / -	- / 4.800	
<i>Subtotal: Service Bulletins</i>	- / -	- / -	- / -	- / 4.800	- / -	- / 4.800	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 65.560	- / 29.645	- / 65.843	- / -	- / 65.843	
<b>Support (All Modification Items)</b>							
PMA - Contractor Services	- / -	- / 2.467	- / -	- / 3.112	- / -	- / 3.112	
<i>Subtotal: Support</i>	- / -	- / 2.467	- / -	- / 3.112	- / -	- / 3.112	
<b>Installation</b>							
<b>Modification Item 1 of 6:</b> BACN Aircraft INSTALL KITS	- / -	- / -	- / -	2 / 0.000	- / -	2 / 0.000	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	2 / -	- / -	2 / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>68.027</b>	<b>29.645</b>	<b>68.955</b>	<b>0.000</b>	<b>68.955</b>	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	<b>Modification Number / Title:</b> 1 / E-11 Mods
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 6:** BACN Aircraft INSTALL KITS

**Manufacturer Information**

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

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	2 / 0.000	- / -	2 / 0.000
<b>Total</b>	- / -	- / -	- / -	2 / 0.000	- / -	2 / 0.000

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	
		<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 6:</b> BACN Payload and Platform Support Equipment			
<b>Manufacturer Information</b>			
Manufacturer Name: Northrop Grumman		Manufacturer Location: Various	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	May 2021	Jan 2022
Delivery Dates	Apr 2020	Aug 2021	Apr 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 10	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>MDAP/MAIS Code:</b>			
<b>Modification Item 3 of 6:</b> E-11A Survivability			
<b>Manufacturer Information</b>			
Manufacturer Name: Northrop Grumman		Manufacturer Location: Various	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	May 2021	
Delivery Dates	Apr 2020	Aug 2021	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 5

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 4 of 6:</b> Engines			
<b>Manufacturer Information</b>			
Manufacturer Name: Rolls Royce		Manufacturer Location: Various	
Administrative Leadtime ( <i>in Months</i> ): 3		Production Leadtime ( <i>in Months</i> ): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	Jan 2021	
Delivery Dates	Aug 2020	Apr 2021	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 8	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	
		<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 5 of 6:</b> Low Cost Mods			
<b>Manufacturer Information</b>			
Manufacturer Name: Unknown		Manufacturer Location: Various	
Administrative Leadtime ( <i>in Months</i> ): 0		Production Leadtime ( <i>in Months</i> ): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020		Apr 2022
Delivery Dates	Mar 2020		Apr 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 4	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> E011A0 / E-11 BACN/HAG	
		<b>Modification Number / Title:</b> 1 / E-11 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 6 of 6:</b> Service Bulletins			
<b>Manufacturer Information</b>			
Manufacturer Name: Unknown		Manufacturer Location: Various	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Jan 2022
Delivery Dates			Jan 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 3	

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F01500 / F-15

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207130F, 0207134F, 0207445F, 0809731F **Other Related Program Elements:** 0207130F, 0207134F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3,805.942	441.091	203.910	234.340	-	234.340	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	3,805.942	441.091	203.910	234.340	-	234.340	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>3,805.942</b>	<b>441.091</b>	<b>203.910</b>	<b>234.340</b>	<b>-</b>	<b>234.340</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	34.155	16.738	11.240	-	11.240	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to the F-15 aircraft. The F-15C/D is a twin engine (F-15C single seat; F-15D dual seat) supersonic, all-weather, day/night, air-superiority fighter. The F-15E is a twin engine, two seat, supersonic dual-role, day/night, all-weather, deep interdiction fighter with multi-role air-to-air capabilities. The overall goals of the budgeted modifications are to improve operational capability, reliability and maintainability, and flight safety. The specific modifications budgeted and programmed are below.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Reform Initiative Defund F-15C Multifunctional Information Distribution System - Joint Tactical Radio System (MIDS-JTRS) saved \$18.6M in FY22. Defund F-15C MIDS-JTRS Description: MIDS-JTRS integrates and installs a new Link 16 system compliant with an National Security Agency crypto modernization mandate (January 2022) and an Federal Aviation Administration mandate (2025) on frequency remapping. Of the 234 planned F-15C installs, modification funding cuts due to the FY26 fleet divestment reduced that number to 101 installs by 4QFY23, with 41 installs complete by the January 2022 mandate.

The FY2022 funding request was reduced by \$36.320 million to account for the availability of prior year execution balances.

Funding for this exhibit is contained in PEs 0207130F, 0207134F, 0207445F, and 0809731F.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	415.617	200.920	227.940	-	227.940	-	-	-	-
AFNG	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	25.474	2.990	6.400	-	6.400	-	-	-	-
<b>Total:</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> F01500 / F-15
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207130F, 0207134F, 0207445F, 0809731F	<b>Other Related Program Elements:</b> 0207130F, 0207134F

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	441.091	203.910	234.340	-	234.340	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F01500 / F-15

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207130F, 0207134F, 0207445F, 0809731F **Other Related Program Elements:** 0207130F, 0207134F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	1203 / F-15 C/D Secondary Power System (SPS) (Reliability & Maintainability)				- / 7.492	- / -	- / -	- / -	- / -	- / -
P-40a***	1205 / :Advanced Display Core Processor, ADCP II-C (Reliability & Maintainability)				- / 107.349	- / 72.094	- / -	- / 0.000	- / -	- / 0.000
P-40a***	1206 / F-15C Infrared Search and Track (IRST) (Capability Improvement)				- / 125.545	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a***	1209 / F-15 C/D Flight Data Recorder (FDR) (Capability Improvement)				- / 24.828	- / -	- / -	- / -	- / -	- / -
P-40a***	1210 / F-15E Flight Data Recorder (FDR) (Capability Improvement)				- / 142.473	- / -	- / -	- / -	- / -	- / -
P-40a***	6158 / F-15C/D APG-63(V)3 radar upgrade (Capability Improvement)				- / 1,341.961	- / 14.678	- / -	- / -	- / -	- / -
P-40a***	8353 / F-15E -JOINT HELMET-MOUNTED CUEING SYSTEM (Reliability & Maintainability)				- / 104.524	- / -	- / -	- / -	- / -	- / -
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Service Life Extension)				- / 6.796	- / 1.147	- / 0.103	- / 0.181	- / -	- / 0.181
P-40a***	8754 / F-15C/D IFF Mode 5 (Reliability & Maintainability)				- / 24.909	- / 26.624	- / -	- / -	- / -	- / -
P-40a***	8755 / F-15E IFF MODE 5 (Reliability & Maintainability)				- / 53.711	- / 7.627	- / 2.080	- / 0.177	- / -	- / 0.177
P-40a***	8756 / F-15C/D Link 16 Cryptographic Modernization (Capability Improvement)				- / 0.002	- / -	- / -	- / -	- / -	- / -
P-40a***	8794 / F-15C/D Beyond Line Of Sight Communications (Capability Improvement)				- / 54.428	- / -	- / -	- / -	- / -	- / -
P-40a***	8797 / F-15C Passive Attack Sensor System (Capability Improvement)				- / 28.577	- / -	- / -	- / -	- / -	- / -
P-40a***	8798 / 5th to 4th Gen Gateway (Capability Improvement)				- / 3.698	- / -	- / -	- / -	- / -	- / -
P-40a***	8799 / F-15C MIDS JTRS (Capability Improvement)				- / 26.700	- / 41.640	- / -	- / -	- / -	- / -
P-40a***	8806 / F-15 C/D Cabin Pressure Indicator (Safety)				- / 2.773	- / -	- / -	- / -	- / -	- / -
P-40a***	8807 / F-15 E Cabin Pressure Indicator (Safety)				- / 15.893	- / -	- / -	- / -	- / -	- / -
P-40a***	8810 / F-15E APG-82(V)1 Common Config (Capability Improvement)				- / 35.097	- / 14.706	- / 12.000	- / 4.954	- / -	- / 4.954
P-40a***	8811 / F-15E SATCOM UON (Other)				- / 17.700	- / -	- / -	- / -	- / -	- / -
P-40a***	8813 / F-15E B61 A/C Umbilical (Capability Improvement)				- / 0.542	- / -	- / -	- / -	- / -	- / -
P-40a***	8815 / F-15C Simulator Upgrade (Capability Improvement)				- / 15.000	- / -	- / -	- / -	- / -	- / -
P-40a***	8816 / F-15C/D APG-63(V)3 Common Config (Reliability & Maintainability)				- / 4.326	- / 0.971	- / 0.338	- / 0.896	- / -	- / 0.896
P-40a***	99999U / LOW COST RETROFIT MODS (Service Life Extension)				- / 7.266	- / 0.001	- / 0.001	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 5.789	- / 0.001	- / -	- / 0.001	- / -	- / 0.001
P-3a	1202 / F-15E Radar Modernization Program APG-82(V)1 (Capability Improvement)		A		- / 1,504.840	- / 155.582	- / 110.088	- / 54.197	- / 0.000	- / 54.197
P-3a	1 / Advanced Display Core Processor, ADCP II-E (Reliability & Maintainability)		B		- / 96.777	- / 49.187	- / 43.956	- / 78.129	- / 0.000	- / 78.129

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F01500 / F-15

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207130F, 0207134F, 0207445F, 0809731F **Other Related Program Elements:** 0207130F, 0207134F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	8800 / F-15E MIDS JTRS (Capability Improvement)		B		- / 34.023	- / 34.576	- / 29.011	- / 38.588	- / 0.000	- / 38.588
P-3a	8801 / F-15 C/D SLEP Longerons (Service Life Extension)		B		- / 12.923	- / 21.627	- / 6.333	- / 25.923	- / 0.000	- / 25.923
P-3a	8804 / F-15 F-15 E/MUOS (Capability Improvement)		B		- / -	- / 0.630	- / 0.000	- / 8.667	- / 0.000	- / 8.667
P-3a	8817 / F-15E DTM II (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 7.527	- / 0.000	- / 7.527
P-3a	8820 / F-15E Digital Color Display (Capability Improvement)		A		- / -	- / 0.000	- / 0.000	- / 15.100	- / 0.000	- / 15.100
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 3,805.942</b>	<b>- / 441.091</b>	<b>- / 203.910</b>	<b>- / 234.340</b>	<b>- / -</b>	<b>- / 234.340</b>

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

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

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

**Justification:**

This program, P-3A Mod 8804, F-15 F-15 E/MUOS, is a new start.

This program, P-3A Mod 8817, F-15E DTM II, is a new start.

This program, P-3A Mod 8820, F-15E Digital Color Display, is a new start.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 1202 / F-15E Radar Modernization Program APG-82(V)1

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,504.840	155.582	110.088	54.197	0.000	54.197
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,504.840	155.582	110.088	54.197	0.000	54.197
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,504.840</b>	<b>155.582</b>	<b>110.088</b>	<b>54.197</b>	<b>0.000</b>	<b>54.197</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	9.994	7.771	6.218	5.350	-	5.350
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

F-15E Radar Modernization Program (RMP), designated the APG-82(V)1, replaces the legacy radar using existing technology from other DOD platforms. It solves parts obsolescence problems and provides improved reliability and performance (increased synthetic aperture radar (SAR) range and resolution), including air-to-air and air-to-ground modes. Also provides for future growth. Total aircraft requirement: 218. This program funded Research Development Test and Evaluation (RDT&E) in PE 0207134F. Requirements document: F-15E Radar Modernization Program CDD dated 21 March 2005. In Aug 2008, AF/ASRD again reviewed the Capabilities Production Document (CPD) requirement and determined it was no longer necessary since the operational requirements in the Capabilities Development Document were still valid and the program had already entered MS C/LRIP.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are include in the Group B recurring; and Depot Costs are included in Support Equipment. Other Government Costs include; DMS, NRE, contractor installs, PDM installs, and ICS.

**Milestone/Development Status**

Development is complete.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	155.582	110.088	54.197	-	54.197
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	<b>155.582</b>	<b>110.088</b>	<b>54.197</b>	<b>0.000</b>	<b>54.197</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15		<b>Modification Number / Title:</b> 1202 / F-15E Radar Modernization Program APG-82(V)1	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: APG-82(v)1</i>						
A Kits						
Recurring						
APG-82(v)1:INSTALL KITS Group A (Active)	187 / 269.350	16 / 24.753	15 / 19.489	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 269.350	- / 24.753	- / 19.489	- / -	- / -	- / -
B Kits						
Recurring						
APG-82(v)1:EQUIPMENT Group B (Active)	187 / 824.109	16 / 86.516	15 / 67.450	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 824.109	- / 86.516	- / 67.450	- / -	- / -	- / -
<i>Subtotal: APG-82(v)1</i>	- / 1,093.459	- / 111.269	- / 86.939	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 1,093.459	- / 111.269	- / 86.939	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 139.035	- / 5.100	- / -	- / -	- / -	- / -
OTHER GOVT	- / 22.186	- / -	- / -	- / -	- / -	- / -
Change Orders	- / 97.421	- / -	- / -	- / 17.897	- / -	- / 17.897
Data	- / 13.295	- / -	- / -	- / -	- / -	- / -
Type 1 Training	- / 0.501	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 13.460	- / 1.020	- / -	- / -	- / -	- / -
ICS-Labor	- / 45.066	- / 12.793	- / 4.200	- / 20.000	- / -	- / 20.000
PMA - Other Gov't Costs	- / 20.115	- / 3.000	- / 1.165	- / 3.000	- / -	- / 3.000
<i>Subtotal: Support</i>	- / 351.079	- / 21.913	- / 5.365	- / 30.897	- / -	- / 30.897
<b>Installation</b>						
<i>Modification Item 1 of 1: APG-82(v)1</i>						
	110 / 60.302	24 / 22.400	24 / 17.784	24 / 23.300	- / -	24 / 23.300
<i>Subtotal: Installation</i>	110 / 60.302	24 / 22.400	24 / 17.784	24 / 23.300	- / -	24 / 23.300
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>1,504.840</b>	<b>155.582</b>	<b>110.088</b>	<b>54.197</b>	<b>0.000</b>	<b>54.197</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 1202 / F-15E Radar Modernization Program APG-82(V)1

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** APG-82(v)1

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: El Segundo CA/Forest MS
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 18

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Sep 2021	Sep 2022	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	110 / 60.302	24 / 22.400	24 / 17.784	24 / 23.300	- / -	24 / 23.300
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	110 / 60.302	24 / 22.400	24 / 17.784	24 / 23.300	- / -	24 / 23.300

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	110	6	6	6	6	6	6	6	6	6	6	6	6
Out	104	6	6	6	6	6	6	6	6	6	6	6	6

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 1 / Advanced Display Core Processor, ADCP II-E

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	96.777	49.187	43.956	78.129	0.000	78.129
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	96.777	49.187	43.956	78.129	0.000	78.129
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>96.777</b>	<b>49.187</b>	<b>43.956</b>	<b>78.129</b>	<b>0.000</b>	<b>78.129</b>

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

Initial Spares <i>(\$ in Millions)</i>	6.720	6.400	6.600	3.400	-	3.400
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

The F-15E requires a replacement Advanced Display Core Processor (ADCP II) to meet future and projected subsystem demands. The ADCP II program will equip the F-15E, including tail number 86-0184, with a central processor with sufficient memory, processing throughput, and Input/Output bandwidth to meet the Operational Flight Program growth requirements of Suite 8 and beyond, and to support other major platform modernization upgrades such as EPAWSS. The increased capability of ADCP II will also enable the F-15E to fully exploit the APG-82(V)1 radar capabilities, to include increased target tracks, mode simultaneity, and increased track data. The ADCP II is required to meet all APG-82(V)1 key system attributes.

Requirements: AF Form 1067 approved July 2012  
DT&E 4Q2016; FDE 4Q2017; MS C: 4Q2017; FRPD 2Q2021

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B recurring; SE/PM costs are include in the Group B recurring; and Depot Costs are included in the Other Govt.

This program has associated Research Development Test and Evaluation (RDT&E) funding in PE 0207134F.

Milestone/Development Status

Critical Design Review (CDR) completed 4QFY2013, Milestone B completed 1QFY2014. Milestone C completed 4QFY2017, Full Rate Production Decision (FRPD) completed 2QFY2021.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	49.187	43.956	78.129	-	78.129
<b>Total:</b>	Quantity	-	-	-	-	-
<b>Secondary Distribution</b>	Total Obligation Authority	<b>49.187</b>	<b>43.956</b>	<b>78.129</b>	<b>0.000</b>	<b>78.129</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15		<b>Modification Number / Title:</b> 1 / Advanced Display Core Processor, ADCP II-E	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b> 0207134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207134F	- / 196.483	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1: ADCP II E</b>						
A Kits						
Recurring						
ADCP II E:INSTALL KITS Group A (Active)	69 / 0.888	36 / 0.484	53 / 0.733	60 / 0.840	- / -	60 / 0.840
<i>Subtotal: Recurring</i>	- / 0.888	- / 0.484	- / 0.733	- / 0.840	- / -	- / 0.840
B Kits						
Recurring						
ADCP II E:EQUIPMENT Group B (Active)	69 / 70.048	36 / 35.255	53 / 40.741	60 / 48.502	- / -	60 / 48.502
<i>Subtotal: Recurring</i>	- / 70.048	- / 35.255	- / 40.741	- / 48.502	- / -	- / 48.502
<i>Subtotal: ADCP II E</i>	- / 70.936	- / 35.739	- / 41.474	- / 49.342	- / -	- / 49.342
<i>Subtotal: Procurement, All Modification Items</i>	- / 70.936	- / 35.739	- / 41.474	- / 49.342	- / -	- / 49.342
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 6.808	- / -	- / -	- / -	- / -	- / -
Type 1 Training	- / 0.043	- / 0.043	- / -	- / 0.050	- / -	- / 0.050
Change Orders	- / 2.575	- / 0.258	- / -	- / 0.541	- / -	- / 0.541
Data	- / 2.755	- / 1.448	- / -	- / 1.690	- / -	- / 1.690
SUPPORT-EQUIP	- / 0.000	- / -	- / -	- / -	- / -	- / -
ICS-Labor	- / 3.262	- / 1.265	- / 1.992	- / 11.517	- / -	- / 11.517
OTHER GOVT	- / 4.859	- / 17.625	- / -	- / 9.786	- / -	- / 9.786
PMA - Other Gov't Costs	- / 5.539	- / 12.699	- / -	- / 4.623	- / -	- / 4.623
<i>Subtotal: Support</i>	- / 25.841	- / 13.338	- / 1.992	- / 28.207	- / -	- / 28.207
<b>Installation</b>						
<b>Modification Item 1 of 1: ADCP II E</b>	- / -	11 / 0.110	49 / 0.490	58 / 0.580	- / -	58 / 0.580
<i>Subtotal: Installation</i>	- / -	11 / 0.110	49 / 0.490	58 / 0.580	- / -	58 / 0.580
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>96.777</b>	<b>49.187</b>	<b>43.956</b>	<b>78.129</b>	<b>0.000</b>	<b>78.129</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 1 / Advanced Display Core Processor, ADCP II-E

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** ADCP II E

**Manufacturer Information**

Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 15	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Apr 2021	Apr 2022	Apr 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	11 / 0.110	49 / 0.490	9 / 0.090	- / -	9 / 0.090
FY 2020	- / -	- / -	- / -	36 / 0.360	- / -	36 / 0.360
FY 2021	- / -	- / -	- / -	13 / 0.130	- / -	13 / 0.130
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	11 / 0.110	49 / 0.490	58 / 0.580	- / -	58 / 0.580

**Installation Schedule**

	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	1	1	0	9	14	22	11	2	12	16	13	17
Out	0	1	1	0	9	14	22	11	2	12	16	13	17

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8800 / F-15E MIDS JTRS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	34.023	34.576	29.011	38.588	0.000	38.588
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	34.023	34.576	29.011	38.588	0.000	38.588
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>34.023</b>	<b>34.576</b>	<b>29.011</b>	<b>38.588</b>	<b>0.000</b>	<b>38.588</b>

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

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

**Description:**

This upgrade integrates and installs a new Link 16 system on the F-15E that complies with an NSA mandate on cryptographic modernization and an FAA mandate on frequency remapping. The FAA mandate requires all fielded Link-16 terminals incorporate the frequency re-mapping capability by 2025.

In addition to meeting the two mandates, the system will significantly increase data link capacity and improve long range performance and the ability to operate in a jamming environment. It will also reduce sustainment costs due to its commonality with other DoD assets.

Funding may be used to resolve Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign.

DMSMS costs are included in Group B NRE; SE/PM costs are included in the Group B recurring.

Milestone/Development Status

MIDS JTRS will be integrated in OFP Suite 9. Milestone C was approved June 2018.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	34.576	29.011	38.588	-	38.588
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>34.576</b>	<b>29.011</b>	<b>38.588</b>	<b>0.000</b>	<b>38.588</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F01500 / F-15			<b>Modification Number / Title:</b> 8800 / F-15E MIDS JTRS		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207134F	- / 179.274	- / 11.320	- / 1.550	- / -	- / -	- / -	
<b>Procurement</b>							
<b>Modification Item 1 of 1: MIDS JTRS</b>							
A Kits							
Recurring							
MIDS JTRS:INSTALL KITS Group A (Active)	70 / 0.574	56 / 2.240	81 / 0.314	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.574	- / 2.240	- / 0.314	- / -	- / -	- / -	
B Kits							
Recurring							
MIDS JTRS:EQUIPMENT Group B (Active)	70 / 29.775	56 / 11.200	81 / 17.040	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 29.775	- / 11.200	- / 17.040	- / -	- / -	- / -	
<i>Subtotal: MIDS JTRS</i>	- / 30.349	- / 13.440	- / 17.354	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 30.349	- / 13.440	- / 17.354	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING							
Change Orders	- / 1.124	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 2.550	- / 16.500	- / 1.459	- / 12.750	- / -	- / 12.750	
ICS-Labor	- / -	- / 16.176	- / 2.650	- / 10.952	- / -	- / 10.952	
<i>Subtotal: Support</i>	- / 3.674	- / 20.938	- / 7.193	- / 32.152	- / -	- / 32.152	
<b>Installation</b>							
<b>Modification Item 1 of 1: MIDS JTRS</b>							
<i>Subtotal: Installation</i>	- / -	2 / 0.198	36 / 4.464	65 / 6.436	- / -	65 / 6.436	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>34.023</b>	<b>34.576</b>	<b>29.011</b>	<b>38.588</b>	<b>0.000</b>	<b>38.588</b>	

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8800 / F-15E MIDS JTRS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MIDS JTRS

**Manufacturer Information**

Manufacturer Name: BAE Systems	Manufacturer Location: Wayne, NJ
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Administrative Leadtime (in Months): 12	Production Leadtime (in Months): 11
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Oct 2020	Oct 2021	
Delivery Dates	Sep 2021	Sep 2022	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 0.198	35 / 3.465	32 / 3.168	- / -	32 / 3.168
FY 2020	- / -	- / -	- / -	4 / 0.397	- / -	4 / 0.397
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	2 / 0.198	35 / 3.465	36 / 3.565	- / -	36 / 3.565

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	0		-	-	-	2	8	8	9	10	9	9	9	9
	0		-	-	-	2	8	8	9	10	9	9	9	9

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	1 / 0.999	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	29 / 2.871	- / -	29 / 2.871
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	1 / 0.999	29 / 2.871	- / -	29 / 2.871

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8800 / F-15E MIDS JTRS
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** MIDS JTRS

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	1	7	7	7	8
Out	0	-	-	-	-	-	-	-	-	1	7	7	7	8



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8801 / F-15 C/D SLEP Longerons

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	12.923	21.627	6.333	25.923	0.000	25.923
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	12.923	21.627	6.333	25.923	0.000	25.923
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>12.923</b>	<b>21.627</b>	<b>6.333</b>	<b>25.923</b>	<b>0.000</b>	<b>25.923</b>

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

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

**Description:**

The F-15C/D Service Life Extension Program (SLEP) for the Longerons is required to address a current safety of flight issue that has grounded numerous aircraft and is resulting in an increasing mission impact. Without this program, 170/234 aircraft will be grounded by 2024 and the fleet will be unable to meet its required service life. The requirement is documented via AF 1067 15-199 dated 6 Jan 16. No additional development to the existing Longerons configuration is required. Data for replacement kits is resident within the F-15 program office. This is a Group B ONLY MOD.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, obsolescence issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. DMSMS activities may include, but are not limited to, bridge buys, life of type buys, buys to protect production schedule, and minor engineering efforts for redesign. DMSMS costs are included in Group B NRE; SE/PM costs are included in the Group B recurring; and Depot Costs are included in the Support Equipment.

**Milestone/Development Status**

This program replaces the components according to their original design. Therefore, no development effort or funding required.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	14.247	3.343	19.523	-	19.523
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	7.380	2.990	6.400	-	6.400
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>21.627</b>	<b>6.333</b>	<b>25.923</b>	<b>0.000</b>	<b>25.923</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15		<b>Modification Number / Title:</b> 8801 / F-15 C/D SLEP Longerons	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-15C, F-15D		<b>Modification Type:</b> Service Life Extension		<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Longeron Configuration A						
B Kits						
Recurring						
Longeron Configuration A:EQUIPMENT Group B (Active)	31 / 4.470	32 / 5.100	- / -	- / -	- / -	- / -
Longeron Configuration A:EQUIPMENT Group B (Guard)	33 / 7.010	32 / 5.780	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 11.480	- / 10.880	- / -	- / -	- / -	- / -
<i>Subtotal: Longeron Configuration A</i>	- / 11.480	- / 10.880	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.480	- / 10.880	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / -	- / 0.200	- / -	- / -	- / -	- / -
A&AS	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000
SUPPORT-EQUIP	- / 1.355	- / 1.062	- / -	- / 0.000	- / -	- / 0.000
PMA - Other Gov't Costs	- / 0.048	- / 2.185	- / 0.353	- / 0.077	- / -	- / 0.077
Change Orders	- / 0.040	- / 4.100	- / -	- / 12.246	- / -	- / 12.246
<i>Subtotal: Support</i>	- / 1.443	- / 7.547	- / 0.353	- / 12.323	- / -	- / 12.323
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Longeron Configuration A	- / -	8 / 3.200	20 / 5.980	36 / 13.600	- / -	36 / 13.600
<i>Subtotal: Installation</i>	- / -	8 / 3.200	20 / 5.980	36 / 13.600	- / -	36 / 13.600
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>12.923</b>	<b>21.627</b>	<b>6.333</b>	<b>25.923</b>	<b>0.000</b>	<b>25.923</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8801 / F-15 C/D SLEP Longerons
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Longeron Configuration A

**Manufacturer Information**

Manufacturer Name: Boeing		Manufacturer Location: Robins AFB	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 18	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Feb 2020		
Delivery Dates	Aug 2021		

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	8 / 3.200	20 / 5.980	30 / 10.400	- / -	30 / 10.400
FY 2020	- / -	- / -	- / -	6 / 3.200	- / -	6 / 3.200
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	8 / 3.200	20 / 5.980	36 / 13.600	- / -	36 / 13.600

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	1	2	5	4	4	5	7	9	9	9	9
Out	0	-	2	2	3	5	4	5	7	8	9	9	9

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8804 / F-15 F-15 E/MUOS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.630	0.000	8.667	0.000	8.667
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.630	0.000	8.667	0.000	8.667
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.630</b>	<b>0.000</b>	<b>8.667</b>	<b>0.000</b>	<b>8.667</b>

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

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

**Description:**

This program, P-3A Mod 8804, F-15 F-15 E/MUOS, is a new start. The F-15 requires SATCOM radio upgrade for Mobile User Objective System (MUOS)/Second Generation Anti-jam Tactical UHF Radio for NATO(SATURN) capability to meet mission requirements that is limited by legacy systems. SATURN is required to provide secure line of sight tactical communication and replace the legacy Have Quick II system. It also requires an update to crypto system to overcome obsolescence of the current KY-58. The MUOS/SATURN program will equip F-15E's with MUOS/SATURN-capable radios. The MUOS/SATURN program will comply with the NSA Crypto modernization mandates.

**Milestone/Development Status**

MUOS will be integrated into Suite 9.2 or later

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.630	-	8.667	-	8.667
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	<b>0.630</b>	<b>0.000</b>	<b>8.667</b>	<b>0.000</b>	<b>8.667</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15		<b>Modification Number / Title:</b> 8804 / F-15 F-15 E/MUOS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Group B (3)</i>						
A Kits						
Recurring						
Group B:INSTALL KITS Group A (Active)	- / -	- / -	- / -	10 / 2.640	- / -	10 / 2.640
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.640</i>	<i>- / -</i>	<i>- / 2.640</i>
B Kits						
Recurring						
Group B:EQUIPMENT Group B (Active)	- / -	- / -	- / -	10 / 3.280	- / -	10 / 3.280
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.280</i>	<i>- / -</i>	<i>- / 3.280</i>
<i>Subtotal: Group B (3)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 5.920</i>	<i>- / -</i>	<i>- / 5.920</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 5.920</i>	<i>- / -</i>	<i>- / 5.920</i>
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / -	- / 0.630	- / -	- / 2.747	- / -	- / 2.747
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / 0.630</i>	<i>- / -</i>	<i>- / 2.747</i>	<i>- / -</i>	<i>- / 2.747</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>0.630</b>	<b>0.000</b>	<b>8.667</b>	<b>0.000</b>	<b>8.667</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8804 / F-15 F-15 E/MUOS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Group B (3)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 10

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

**Installation Information**

**Method of Implementation:** Contract Field Team

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8817 / F-15E DTM II
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	0.000	7.527	0.000	7.527
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	0.000	7.527	0.000	7.527
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority <i>(\$ in Millions)</i></b>	-	<b>0.000</b>	<b>0.000</b>	<b>7.527</b>	<b>0.000</b>	<b>7.527</b>

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

Initial Spares <i>(\$ in Millions)</i>	-	-	-	0.640	-	0.640
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 8817, F-15E DTM II, is a new start. The Data Transfer Module II (DTM II) is an upgraded replacement to the current, low-memory data transfer system. Improves and supports mission planning capability and weapons employment, increases storage, replaces aging mapping system, updates interfaces, provides data encryption and delivers cyber security.

**Milestone/Development Status**

Continuing to procure Group A and Group B kits.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-
	Total Obligation Authority	-	-	7.527	-
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-
	Total Obligation Authority	<b>0.000</b>	<b>0.000</b>	<b>7.527</b>	<b>0.000</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15		<b>Modification Number / Title:</b> 8817 / F-15E DTM II	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b> 0207134F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Data Transfer Module II</i>						
A Kits						
Recurring						
Data Transfer Module II:INSTALL KITS Group A (Active)	- / -	- / -	- / -	61 / 1.464	- / -	61 / 1.464
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.464</i>	<i>- / -</i>	<i>- / 1.464</i>
B Kits						
Recurring						
Data Transfer Module II:EQUIPMENT Group B (Active)	- / -	- / -	- / -	61 / 4.575	- / -	61 / 4.575
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 4.575</i>	<i>- / -</i>	<i>- / 4.575</i>
<i>Subtotal: Data Transfer Module II</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.039</i>	<i>- / -</i>	<i>- / 6.039</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.039</i>	<i>- / -</i>	<i>- / 6.039</i>
<b>Support (All Modification Items)</b>						
Change Orders						
	- / -	- / -	- / -	- / 1.488	- / -	- / 1.488
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.488</i>	<i>- / -</i>	<i>- / 1.488</i>
<b>Installation</b>						
<i>Modification Item 1 of 1: Data Transfer Module II</i>						
	- / -	- / -	- / -	61 / 0.000	- / -	61 / 0.000
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>61 / -</i>	<i>- / -</i>	<i>61 / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>0.000</b>	<b>0.000</b>	<b>7.527</b>	<b>0.000</b>	<b>7.527</b>



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8817 / F-15E DTM II
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Data Transfer Module II

**Manufacturer Information**

Manufacturer Name: POC	Manufacturer Location: Depot
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 11

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Mar 2022
Delivery Dates			Feb 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	61 / 0.000	- / -	61 / 0.000
<b>Total</b>	- / -	- / -	- / -	61 / 0.000	- / -	61 / 0.000

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	15	15	15	16
Out	0	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8820 / F-15E Digital Color Display

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	15.100	0.000	15.100
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	15.100	0.000	15.100
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>15.100</b>	<b>0.000</b>	<b>15.100</b>

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

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

**Description:**

This program, P-3A Mod 8820, F-15E Digital Color Display, is a new start. Digital Color Displays contains high resolution digital color displays; these will replace the current antiquated monochrome displays. These upgraded displays enable accurate distinction and identification of targets, decrease risk of frat/misled targeting, and enable full utilization of radar capability that significantly enhances situational awareness.

**Milestone/Development Status**

Development will start in FY20.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	15.100	-	15.100
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>0.000</b>	<b>15.100</b>	<b>0.000</b>	<b>15.100</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01500 / F-15			<b>Modification Number / Title:</b> 8820 / F-15E Digital Color Display	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Digital Color Displays Group B (Active)							
A Kits							
Recurring							
Digital Color Displays Group B (Active):INSTALL KITS Group A (Active)	- / -	- / -	- / -	4 / 11.754	- / -	4 / 11.754	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 11.754	- / -	- / 11.754	
B Kits							
Recurring							
Digital Color Displays Group B (Active):EQUIPMENT Group B (Active)	- / -	- / -	- / -	4 / 1.600	- / -	4 / 1.600	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.600	- / -	- / 1.600	
<i>Subtotal: Digital Color Displays Group B (Active)</i>	- / -	- / -	- / -	- / 13.354	- / -	- / 13.354	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 13.354	- / -	- / 13.354	
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / -	- / -	- / -	- / 1.646	- / -	- / 1.646	
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 1.646	- / -	- / 1.646	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Digital Color Displays Group B (Active)							
<i>Subtotal: Installation</i>	- / -	- / -	- / -	4 / 0.100	- / -	4 / 0.100	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	-	0.000	0.000	15.100	0.000	15.100	

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01500 / F-15	<b>Modification Number / Title:</b> 8820 / F-15E Digital Color Display
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Digital Color Displays Group B (Active)

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: St. Louis, MO
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 9

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Mar 2022
Delivery Dates			Dec 2022

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	4 / 0.100	- / -	4 / 0.100
<b>Total</b>	- / -	- / -	- / -	4 / 0.100	- / -	4 / 0.100

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F01600 / F-16
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207133F, 0207445F, 0809731F	Other Related Program Elements: 0207133F, 0207445F, 0207701F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	808.976	252.109	622.593	613.166	-	613.166	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	808.976	252.109	622.593	613.166	-	613.166	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>808.976</b>	<b>252.109</b>	<b>622.593</b>	<b>613.166</b>	-	<b>613.166</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	4.267	5.470	8.019	-	8.019	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The F-16 is a multi-role fighter capable of employing a wide variety of nuclear and conventional weapons and missiles in both the air-to-surface and air-to-air mission areas. There are 935 aircraft in the F-16 fleet, consisting of 610 Post-Block (40/42/50/52) and 325 Pre-Block (25/30/32). The Post-Block aircraft have a service life of 8,000 Equivalent Flight Hours (EFH) and the Pre-Block have a service life of 10,800 EFH. The average age of the fleet is 28.7 years. The F-16 provides the capacity called for in the National Defense Strategy (NDS) by supplying the USAF ~45% of its fighter fleet at the highest readiness rates and lowest operating costs of any US fighter. The F-16 programs listed below also support the NDS's call to strengthen alliances by being the DoD's largest Foreign Military Sales (FMS) program servicing over 28 countries and growing. The funding described in this document directly maps to the NDS as it provides upgrades to the F-16 platform enabling the delivery of joint lethality in contested environments in the coming decades. These specific modifications budgeted and programmed are below.

Funding for AETC-MTD Trainers mod is budgeted in PE 0809731F. Funding for all other F-16 mods in this exhibit is budgeted in PE 0207133F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	162.013	495.027	498.964	0.000	498.964	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	88.561	119.273	100.999	-	100.999	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.535	8.293	13.203	-	13.203	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> F01600 / F-16
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207133F, 0207445F, 0809731F	<b>Other Related Program Elements:</b> 0207133F, 0207445F, 0207701F

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	252.109	622.593	613.166	0.000	613.166	-	-	-	-

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F01600 / F-16

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207133F, 0207445F, 0809731F **Other Related Program Elements:** 0207133F, 0207445F, 0207701F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	633030 / Aggressors Update (Capability Improvement)				- / 9.360	- / 0.000	- / 3.131	- / 0.000	- / 0.000	- / 0.000
P-40a***	633041 / Anti Jam (Capability Improvement)				- / 5.000	- / -	- / -	- / -	- / -	- / -
P-40a***	633042 / Missile Warning Systems (Capability Improvement)				- / 12.000	- / -	- / -	- / -	- / -	- / -
P-40a***	661652 / Link 16 Crypto (Capability Improvement)				- / 0.139	- / -	- / -	- / -	- / -	- / -
P-40a***	661653 / MIDS-JTRS (Capability Improvement)				- / 237.644	- / 0.269	- / 33.093	- / 0.000	- / -	- / 0.000
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 112.272	- / 5.431	- / 0.487	- / 0.840	- / -	- / 0.840
P-40a***	866251 / Full Combat Mission Training (Capability Improvement)				- / 3.128	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 11.750	- / 0.010	- / 0.010	- / 0.146	- / -	- / 0.146
P-3a	602148 / MMC and Display Generator Upgrade (Capability Improvement)		B		- / 0.000	- / 0.000	- / 15.386	- / 37.754	- / 0.000	- / 37.754
P-3a	602600 / F-16 LEGACY STRUCTURAL SLEP (Service Life Extension)		B		- / 49.566	- / 45.050	- / 85.751	- / 100.120	- / 0.000	- / 100.120
P-3a	618250 / Comm Suite Upgrade (Capability Improvement)		B		- / 52.142	- / 18.610	- / 57.689	- / 70.021	- / 0.000	- / 70.021
P-3a	633031 / HFLCC AGCAS (Capability Improvement)		B		- / 26.688	- / 17.043	- / 25.917	- / 17.577	- / 0.000	- / 17.577
P-3a	633032 / AIFF MODE 5 (Capability Improvement)		B		- / 0.273	- / 0.000	- / 0.000	- / 13.088	- / 0.000	- / 13.088
P-3a	694050 / AESA Radars (Capability Improvement)		B		- / 274.322	- / 159.394	- / 342.196	- / 317.164	- / 0.000	- / 317.164
P-3a	704050 / Digital Radar Warning Receiver (RWR) (Capability Improvement)		B		- / 0.000	- / 0.000	- / 16.187	- / 49.964	- / 0.000	- / 49.964
P-3a	866250 / F-16 TRAINING SYSTEMS (Capability Improvement)		B		- / 14.692	- / 6.302	- / 42.746	- / 6.492	- / 0.000	- / 6.492
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 808.976</b>	<b>- / 252.109</b>	<b>- / 622.593</b>	<b>- / 613.166</b>	<b>- / -</b>	<b>- / 613.166</b>

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

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

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

**Justification:**

This program, P-3A Mod 633032, AIFF MODE 5, is a new start.

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602148 / MMC and Display Generator Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	15.386	37.754	0.000	37.754
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	15.386	37.754	0.000	37.754
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>15.386</b>	<b>37.754</b>	<b>0.000</b>	<b>37.754</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	0.454	2.362	7.799	-	7.799
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

This modification upgrades the current F-16 core mission computer to include increased high-speed data throughput, additional memory, and adds an Ethernet High Speed Data Network (HSDN) to realize the full capabilities provided by the Active Electronically Scanned Array (AESA) radar program. This modification also incorporates the installation of remote interface panels (RIP), which allows for the transfer of mission planning loaded data. The upgraded mission computer is required because the current 1553 mux data transfer path is nearing its throughput capacity. The new Program Display Generator (PDG) allows for a fully integrated Multi-Function Display Set (MFDS) solution including Hands-on Throttle and Stick (HOTAS) integration with Sensor of Interest (SOI), format swapping and high definition video on 4x4 displays. The new PDG also provides improved display formats during dynamic maneuvers; resolves symbol freezing issues due to throughput constraints; and provides a sustainable approach to address growing DMS concerns with the current PDG.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity.

**Milestone/Development Status**

For MMC, FY21 will continue SIL testing. Milestone C is scheduled for January FY22.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	15.336	28.131	-	28.131
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	0.050	9.623	-	9.623
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>15.386</b>	<b>37.754</b>	<b>0.000</b>	<b>37.754</b>



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16			<b>Modification Number / Title:</b> 602148 / MMC and Display Generator Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207133F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207133F	63 / 80.784	- / 16.919	- / 17.046	- / 2.891	- / -	- / 2.891	
<b>Procurement</b>							
<b>Modification Item 1 of 2: MMC Kit</b>							
A Kits							
Recurring							
MMC Kit:INSTALL KITS Group A (Active)	- / -	- / -	- / -	55 / 0.028	- / -	55 / 0.028	
MMC Kit:INSTALL KITS Group A (Guard)	- / -	- / -	100 / 0.050	57 / 0.029	- / -	57 / 0.029	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.050	- / 0.057	- / -	- / 0.057	
B Kits							
Recurring							
MMC Kit:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	78 / 9.594	- / -	78 / 9.594	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 9.594	- / -	- / 9.594	
<i>Subtotal: MMC Kit</i>	- / -	- / -	- / 0.050	- / 9.651	- / -	- / 9.651	
<b>Modification Item 2 of 2: PDG Kit</b>							
A Kits							
Recurring							
PDG Kit:INSTALL KITS Group A (Active)	- / -	- / -	125 / 0.750	156 / 0.936	- / -	156 / 0.936	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.750	- / 0.936	- / -	- / 0.936	
B Kits							
Recurring							
PDG Kit:EQUIPMENT Group B (Active)	- / -	- / -	- / -	125 / 10.500	- / -	125 / 10.500	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 10.500	- / -	- / 10.500	
<i>Subtotal: PDG Kit</i>	- / -	- / -	- / 0.750	- / 11.436	- / -	- / 11.436	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 0.800	- / 21.087	- / -	- / 21.087	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	
ICS-Material	- / -	- / -	- / 12.189	- / 17.026	- / -	- / 17.026	
Change Orders	- / -	- / -	- / 12.110	- / 11.639	- / -	- / 11.639	
SUPPORT-EQUIP	- / -	- / -	- / 12.114	- / 14.802	- / -	- / 14.802	
OTHER GOVT	- / -	- / -	- / 18.173	- / 3.200	- / -	- / 3.200	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602148 / MMC and Display Generator Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> F-16	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0207133F
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Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 14.586	- / 16.667	- / -	- / 16.667
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>15.386</b>	<b>37.754</b>	<b>0.000</b>	<b>37.754</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602148 / MMC and Display Generator Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** MMC Kit

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: McKinney, TX
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Feb 2022
Delivery Dates			Feb 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602148 / MMC and Display Generator Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** PDG Kit

**Manufacturer Information**

Manufacturer Name: General Dynamics		Manufacturer Location: Minneapolis, MN	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 14	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Jul 2022
Delivery Dates			Sep 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602600 / F-16 LEGACY STRUCTURAL SLEP

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	49.566	45.050	85.751	100.120	0.000	100.120
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	49.566	45.050	85.751	100.120	0.000	100.120
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>49.566</b>	<b>45.050</b>	<b>85.751</b>	<b>100.120</b>	<b>0.000</b>	<b>100.120</b>

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

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

**Description:**

The goal of this program is to extend the service life of up to all F-16 Blk 40-52 beyond 8000 Equivalent Flying Hours (EFH) to ensure a continually viable fighter force. F-16 aircraft need modifications and structural enhancements to extend the service life of these fighters. The F-16 Structural Service Life Extension Program (SLEP) is intended to be a depot-level upgrade program to replace or rework known life-limited structure to preclude the onset of widespread fatigue damage, maintain safety of flight and enhance aircraft availability. Life-limited components and required installation dates will vary by aircraft block and will be determined via the F-16 Full Scale Durability Test (FSDT) and Engineering and Manufacturing Development (EMD) phase. Without modification of life-limited structures, the F-16 will experience continued structural degradation, which will adversely affect future mission capable rates and become increasingly costly to correct. Because of potential variation in modification requirements and installation schedules among aircraft blocks, the quantity and unit cost of kit procurement and hardware installation will differ from year to year, depending on the mix of aircraft involved.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

**Milestone/Development Status**

The FSDT contract was awarded April 28, 2011, while the EMD was awarded Nov 13, 2013. Development efforts run through 2019, contract is in closeout. The program successfully completed and returned the 4 kit proof aircraft to the field (May 18, Jun 19, Aug 19, and Dec 19). The SLEP modification kits for production aircraft was competitively awarded July 18 and all kits (with the exception of D-model CSL) have completed first article testing (FAT). All 4 LRIP aircraft inducted and are in work at the depot. The full-rate production milestone was approved Jun 2020. OCONUS depot contracts were awarded in early FY21 with working beginning in 2nd quarter FY21.

<b>Secondary Distribution</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF					
Quantity	-	-	-	-	-
Total Obligation Authority	38.510	75.576	89.362	-	89.362
AFNG					
Quantity	-	-	-	-	-
Total Obligation Authority	6.540	10.175	10.758	-	10.758
<b>Total:</b> <b>Secondary Distribution</b>					
<b>Quantity</b>	-	-	-	-	-
<b>Total Obligation Authority</b>	<b>45.050</b>	<b>85.751</b>	<b>100.120</b>	<b>0.000</b>	<b>100.120</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 602600 / F-16 LEGACY STRUCTURAL SLEP	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Service Life Extension		<b>Related RDT&amp;E PEs:</b> 0207133F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207133F	4 / 80.846	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Legacy SLEP Kit						
A Kits						
Recurring						
Legacy SLEP Kit:INSTALL KITS Group A (Active)	17 / 6.769	21 / 8.814	28 / 12.381	30 / 14.027	- / -	30 / 14.027
Legacy SLEP Kit:INSTALL KITS Group A (Guard)	4 / 1.584	5 / 2.003	5 / 1.651	4 / 0.850	- / -	4 / 0.850
<i>Subtotal: Recurring</i>	- / 8.353	- / 10.817	- / 14.032	- / 14.877	- / -	- / 14.877
<i>Subtotal: Legacy SLEP Kit</i>	- / 8.353	- / 10.817	- / 14.032	- / 14.877	- / -	- / 14.877
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.353	- / 10.817	- / 14.032	- / 14.877	- / -	- / 14.877
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
Change Orders	- / 1.717	- / 2.330	- / 2.050	- / 2.219	- / -	- / 2.219
Data	- / -	- / 0.000	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 6.969	- / 8.290	- / -	- / -	- / -	- / -
OTHER GOVT	- / 28.122	- / 17.733	- / 22.805	- / 3.760	- / -	- / 3.760
<i>Subtotal: Support</i>	- / 36.808	- / 18.353	- / 24.855	- / 5.979	- / -	- / 5.979
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Legacy SLEP Kit	2 / 4.405	7 / 15.880	22 / 46.864	32 / 79.264	- / -	32 / 79.264
<i>Subtotal: Installation</i>	2 / 4.405	7 / 15.880	22 / 46.864	32 / 79.264	- / -	32 / 79.264
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>49.566</b>	<b>45.050</b>	<b>85.751</b>	<b>100.120</b>	<b>0.000</b>	<b>100.120</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 602600 / F-16 LEGACY STRUCTURAL SLEP

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Legacy SLEP Kit

**Manufacturer Information**

Manufacturer Name: Multiple		Manufacturer Location: Fort Worth, TX	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Apr 2020	Apr 2021	Apr 2022
Delivery Dates	Apr 2021	Apr 2022	Apr 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 4.405	7 / 15.880	10 / 21.308	1 / 2.477	- / -	1 / 2.477
FY 2020	- / -	- / -	12 / 25.556	14 / 37.155	- / -	14 / 37.155
FY 2021	- / -	- / -	- / -	17 / 39.632	- / -	17 / 39.632
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>2 / 4.405</b>	<b>7 / 15.880</b>	<b>22 / 46.864</b>	<b>32 / 79.264</b>	<b>- / -</b>	<b>32 / 79.264</b>

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	2	1	2	0	4	7	3	6	6	7	11	6	8
Out	0	0	2	1	-	2	0	4	7	3	6	6	7

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 618250 / Comm Suite Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	52.142	18.610	57.689	70.021	0.000	70.021
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	52.142	18.610	57.689	70.021	0.000	70.021
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>52.142</b>	<b>18.610</b>	<b>57.689</b>	<b>70.021</b>	<b>0.000</b>	<b>70.021</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	2.389	3.601	2.892	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Chairman, Joint Chiefs of Staff directed a modernization effort based on the recommendation of the National Security Agency (NSA) to modernize equipment and provide enhanced security for tactical networks (Cryptographic Modernization (CM)). The F-16 Comm Suite Upgrade addresses these mandates by including CM, Mobile User Objective System (MUOS), second generation Anti-Jam Tactical UHF Radio for NATO (SATURN), a Cockpit Communication Control Panel (C3PO) and a Digital Comm Matrix (DCM). The Communication Suite Upgrade provides crypto modernization for MUOS tactical networks that enables increased interoperable communications and more secure command and control. Delaying procurement of the ARC-210 Gen 6 radio degrades secure communications and will not meet NSA mandates. Also, rebuilding military readiness and a more lethal force; impacts ability to field sufficient, capable forces to defeat enemies and achieve sustainable outcomes that protect the American people and our vital interests.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This funding request also supports flight testing and technical data updates, as required.

**Milestone/Development Status**

Continue NRE efforts. Milestone C completed December FY20. Procure Group B long-lead items and test assets. Pre-block installs start in FY21.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	18.610	42.809	37.333	-	37.333
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	11.160	23.276	-	23.276
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	-	3.720	9.412	-	9.412
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>18.610</b>	<b>57.689</b>	<b>70.021</b>	<b>0.000</b>	<b>70.021</b>



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 618250 / Comm Suite Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207133F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207133F	1 / 8.126	1 / 3.939	- / 0.607	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1: Comm Suite MUOS</b>						
A Kits						
Recurring						
Comm Suite MUOS:INSTALL KITS Group A (Active)	- / -	- / -	- / -	6 / 0.216	- / -	6 / 0.216
Comm Suite MUOS:INSTALL KITS Group A (Guard)	- / -	- / -	36 / 1.296	50 / 1.800	- / -	50 / 1.800
Comm Suite MUOS:INSTALL KITS Group A (Reserve)	- / -	- / -	12 / 0.432	22 / 0.792	- / -	22 / 0.792
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 1.728</b>	<b>- / 2.808</b>	<b>- / -</b>	<b>- / 2.808</b>
B Kits						
Recurring						
Comm Suite MUOS:EQUIPMENT Group B (Active)	- / -	- / -	- / -	6 / 1.645	- / -	6 / 1.645
Comm Suite MUOS:EQUIPMENT Group B (Guard)	- / -	- / -	36 / 9.864	50 / 13.700	- / -	50 / 13.700
Comm Suite MUOS:EQUIPMENT Group B (Reserve)	- / -	- / -	12 / 3.288	22 / 6.028	- / -	22 / 6.028
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 13.152</b>	<b>- / 21.373</b>	<b>- / -</b>	<b>- / 21.373</b>
<b>Subtotal: Comm Suite MUOS</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 14.880</b>	<b>- / 24.181</b>	<b>- / -</b>	<b>- / 24.181</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 14.880</b>	<b>- / 24.181</b>	<b>- / -</b>	<b>- / 24.181</b>
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / 4.530	- / 11.671	- / -	- / -	- / -	- / -
Change Orders	- / -	- / -	- / 5.000	- / 3.000	- / -	- / 3.000
OTHER GOVT	- / 3.326	- / 3.744	- / 5.000	- / 20.579	- / -	- / 20.579
SUPPORT-EQUIP	- / 44.286	- / 3.195	- / 32.809	- / 11.893	- / -	- / 11.893
<b>Subtotal: Support</b>	<b>- / 52.142</b>	<b>- / 18.610</b>	<b>- / 42.809</b>	<b>- / 35.472</b>	<b>- / -</b>	<b>- / 35.472</b>
<b>Installation</b>						
<b>Modification Item 1 of 1: Comm Suite MUOS</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>48 / 10.368</b>	<b>- / -</b>	<b>48 / 10.368</b>
<b>Subtotal: Installation</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>48 / 10.368</b>	<b>- / -</b>	<b>48 / 10.368</b>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>52.142</b>	<b>18.610</b>	<b>57.689</b>	<b>70.021</b>	<b>0.000</b>	<b>70.021</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 618250 / Comm Suite Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Comm Suite MUOS

**Manufacturer Information**

Manufacturer Name: tbd	Manufacturer Location: tbd
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Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Mar 2021	Mar 2022
Delivery Dates		Mar 2022	Mar 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	48 / 10.368	- / -	48 / 10.368
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	48 / 10.368	- / -	48 / 10.368

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	-	-	24	24
Out	0	-	-	-	-	-	-	-	-	-	-	-	24

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 633031 / HFLCC AGCAS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	26.688	17.043	25.917	17.577	0.000	17.577
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	26.688	17.043	25.917	17.577	0.000	17.577
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>26.688</b>	<b>17.043</b>	<b>25.917</b>	<b>17.577</b>	<b>0.000</b>	<b>17.577</b>

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

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

**Description:**

Hybrid Flight Control Computer (HFLCC) Auto Ground Collision Avoidance System (AGCAS) development and integration for aircraft prevents most Controlled Flight Into Terrain (CFIT) accidents using terrain database and prediction algorithms for aircraft trajectory recovery and executes an automated fly up maneuver to avoid collision.

This program also provides upgrades to F-16 aircraft to bring the entire fleet to a SCU 10 configuration. This SCU 10 baseline configuration enables each aircraft's flight control interoperability ensuring the proper functionality of the HFLCC when auto generating an aircraft fly-up.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This funding request also supports flight testing and technical data updates, as required. This modification directly supports the NDS through increasing warfighter readiness by safeguarding against aircrew losses.

**Milestone/Development Status**

AFRL has completed HFLCC development and will be fully flight certified by Jul 21. Milestone C has been approved. System Program Office will begin to make full rate production buys on Group B in FY21 and begin fielding in FY22.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	9.806	10.224	5.921	-	5.921
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	5.702	12.224	8.978	-	8.978
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	1.535	3.469	2.678	-	2.678
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>17.043</b>	<b>25.917</b>	<b>17.577</b>	<b>0.000</b>	<b>17.577</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16			<b>Modification Number / Title:</b> 633031 / HFLCC AGCAS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207133F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207133F	- / 1.200	- / -	- / -	- / -	- / -	- / -	
<b>Procurement</b>							
<b>Modification Item 1 of 2: COMMON: SCU upgrade</b>							
B Kits							
Recurring							
COMMON: SCU upgrade:EQUIPMENT Group B (Active)	11 / 1.206	35 / 6.632	22 / 2.580	11 / 1.379	- / -	11 / 1.379	
COMMON: SCU upgrade:EQUIPMENT Group B (Guard)	38 / 4.209	38 / 4.370	77 / 8.107	39 / 4.814	- / -	39 / 4.814	
COMMON: SCU upgrade:EQUIPMENT Group B (Reserve)	11 / 1.184	11 / 1.260	22 / 2.560	10 / 1.354	- / -	10 / 1.354	
<i>Subtotal: Recurring</i>	- / 6.599	- / 12.262	- / 13.247	- / 7.547	- / -	- / 7.547	
<i>Subtotal: COMMON: SCU upgrade</i>	- / 6.599	- / 12.262	- / 13.247	- / 7.547	- / -	- / 7.547	
<b>Modification Item 2 of 2: Install Kits Group A</b>							
A Kits							
Recurring							
Install Kits Group A:INSTALL KITS Group A (Active)	20 / 0.350	22 / 0.403	30 / 0.534	7 / 0.121	- / -	7 / 0.121	
Install Kits Group A:INSTALL KITS Group A (Guard)	48 / 0.850	55 / 0.979	73 / 1.298	16 / 0.293	- / -	16 / 0.293	
Install Kits Group A:INSTALL KITS Group A (Reserve)	13 / 0.239	16 / 0.275	20 / 0.365	5 / 0.082	- / -	5 / 0.082	
<i>Subtotal: Recurring</i>	- / 1.439	- / 1.657	- / 2.197	- / 0.496	- / -	- / 0.496	
<i>Subtotal: Install Kits Group A</i>	- / 1.439	- / 1.657	- / 2.197	- / 0.496	- / -	- / 0.496	
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.038	- / 13.919	- / 15.444	- / 8.043	- / -	- / 8.043	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / -	- / 0.320	- / -	- / -	- / -	- / -	
GROUP B: TOTAL NONRECURRING	- / 16.578	- / 0.600	- / -	- / 0.809	- / -	- / 0.809	
Change Orders	- / 1.715	- / 0.572	- / 4.301	- / 2.929	- / -	- / 2.929	
OTHER GOVT	- / 0.217	- / 0.808	- / 0.809	- / 0.155	- / -	- / 0.155	
<i>Subtotal: Support</i>	- / 18.510	- / 2.300	- / 5.110	- / 3.893	- / -	- / 3.893	
<b>Installation</b>							
<b>Modification Item 2 of 2: Install Kits Group A</b>	4 / 0.140	28 / 0.824	80 / 5.363	120 / 5.641	- / -	120 / 5.641	
<i>Subtotal: Installation</i>	4 / 0.140	28 / 0.824	80 / 5.363	120 / 5.641	- / -	120 / 5.641	
<b>Total</b>							

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 633031 / HFLCC AGCAS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> F-16	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0207133F
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	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Financial Plan</b>	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total Cost (Procurement + Support + Installation)</b>	26.688	17.043	25.917	17.577	0.000	17.577

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F01600 / F-16	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 2:</b> COMMON: SCU upgrade			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 0

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 633031 / HFLCC AGCAS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** Install Kits Group A

**Manufacturer Information**

Manufacturer Name: TBD		Manufacturer Location: Hill AFB	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	May 2021	May 2022
Delivery Dates	Aug 2020	Aug 2021	Aug 2022

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 0.140	28 / 0.824	49 / 2.944	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	5 / 0.220	- / -	5 / 0.220
FY 2021	- / -	- / -	31 / 2.419	92 / 4.409	- / -	92 / 4.409
FY 2022	- / -	- / -	- / -	23 / 1.012	- / -	23 / 1.012
<b>Total</b>	4 / 0.140	28 / 0.824	80 / 5.363	120 / 5.641	- / -	120 / 5.641

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	4	7	7	7	7	20	20	20	20	30	30	30	30
Out	4	-	-	-	7	7	7	7	20	20	20	20	30

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 633032 / AIFF MODE 5

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.273	0.000	0.000	13.088	0.000	13.088
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.273	0.000	0.000	13.088	0.000	13.088
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.273</b>	<b>0.000</b>	<b>0.000</b>	<b>13.088</b>	<b>0.000</b>	<b>13.088</b>

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

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

**Description:**

This program, P-3A Mod 633032, AIFF MODE 5, is a new start. Project 633032, F-16 AIFF Mode 5, changed from F-16 ADS-B Out.

AIFF/Mode 5 provides hardware and software/firmware update required to comply with DoD mandate for Advanced Identify Friend or Foe (IFF) Mode 5. Transponder upgrade program replaces/upgrades existing hardware with an AIFF Mode 5 capable system.

Advanced Identify Friend or Foe system (AIFF) provides positive identification for Air Traffic Control reporting, combat targeting, and fratricide prevention.

This program maps to the NDS by providing more secure command and control, which enable increased interoperable communications across the joint force. This critical communications capability generates a more lethal force to defeat enemies and achieve sustainable outcomes that protect the American people and vital US interests.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This funding request also supports flight testing and technical data updates, as required. Additionally, this funding will utilize existing hardware/software/firmware from the developed APX-125/APX-126 and re-host or integrate into the APX-12X.

**Milestone/Development Status**

Contract award - Mar 2020; SDR - Jul 2020; PDR - Jun 2021; CDR - Jan 2022.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	10.862	-	10.862
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	1.113	-	1.113
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	1.113	-	1.113
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force				<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 633032 / AIFF MODE 5		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	0.000	0.000	13.088	0.000	13.088

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16			<b>Modification Number / Title:</b> 633032 / AIFF MODE 5	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207133F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>							
<i>Modification Item 1 of 1: SCU 10 and APX-12X</i>							
A Kits							
Recurring							
SCU 10 and APX-12X:INSTALL KITS Group A (Active)	- / -	- / -	- / -	4 / 1.587	- / -	4 / 1.587	
SCU 10 and APX-12X:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	2 / 0.793	- / -	2 / 0.793	
SCU 10 and APX-12X:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	2 / 0.793	- / -	2 / 0.793	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 3.173	- / -	- / 3.173	
<i>Subtotal: SCU 10 and APX-12X</i>	- / -	- / -	- / -	- / 3.173	- / -	- / 3.173	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 3.173	- / -	- / 3.173	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 0.273	- / -	- / -	- / 8.635	- / -	- / 8.635	
<i>Subtotal: Support</i>	- / 0.273	- / -	- / -	- / 8.635	- / -	- / 8.635	
<b>Installation</b>							
<i>Modification Item 1 of 1: SCU 10 and APX-12X</i>							
<i>Subtotal: Installation</i>	- / -	- / -	- / -	8 / 1.280	- / -	8 / 1.280	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.273</b>	<b>0.000</b>	<b>0.000</b>	<b>13.088</b>	<b>0.000</b>	<b>13.088</b>	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 633032 / AIFF MODE 5
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** SCU 10 and APX-12X

**Manufacturer Information**

Manufacturer Name: BAE	Manufacturer Location: NewYork
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 3

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

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	8 / 1.280	- / -	8 / 1.280
<b>Total</b>	- / -	- / -	- / -	8 / 1.280	- / -	8 / 1.280

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	-	-	-	8
Out	0	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 694050 / AESA Radars

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	274.322	159.394	342.196	317.164	0.000	317.164
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	274.322	159.394	342.196	317.164	0.000	317.164
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>274.322</b>	<b>159.394</b>	<b>342.196</b>	<b>317.164</b>	<b>0.000</b>	<b>317.164</b>

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

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

**Description:**

The purpose of the F-16 Active Electronically Scanned Array (AESA) Radar program is to procure, install and sustain AESA radars plus spares for the Air National Guard (ANG), Air Force Reserve, and the active duty Air Force F-16s, across all blocks of USAF F-16 aircraft (Block 30/32/40/42/40/50/52). The new AESA radar will replace the legacy mechanically-scanned AN/APG-68 radar. The key requirements are enhanced Air to Air capability and an expedited delivery schedule. It is imperative to operationally field the AESA radar in support of homeland defense against evolving threats.

The Joint Emergent Operational Need (JEON) requirement was issued in March 2015 and includes improved air-to-air detect and track in support of homeland defense performing the Aerospace Control Alert (ACA) mission. The initial acquisition of 72 radars and associated spares in FY17/18 reflects the JEON portion of this requirement. To facilitate the most expedient operational capability, the JEON integration will be accomplished via the 1553 legacy interface with minimal changes to the F-16 aircraft core Operational Flight Program (OFP) during Phase 1 of the F-16 AESA program. This also includes the purchase of Center Display Units (CDU), High-Speed Data Network (HSDN) components, and Remote Interface Panels (RIPs), which are derived requirements for full Phase III AESA functionality. Subsequent AESA radar buys began in 2QFY20 to outfit 505 F-16's for the Combat Air Force (CAF) and ANG.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This funding request also supports flight testing and technical data updates, as required.

AESA Radar program will continue Phase III development efforts for full CDD radar development including flight testing and TO development.

**Milestone/Development Status**

Fielding of the first 72 JEON radars commenced at Andrews AFB in 4QFY19 and Initial Operational Capability (IOC) readiness (8 APG-83 systems installed) was achieved 1QFY20. Milestone C Production was approved 2QFY21 to support Phase III (505 radars) fielding beginning 1QFY22.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	83.075	280.197	316.639	-	316.639
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	76.319	61.999	0.525	-	0.525
<b>Total: Secondary Distribution</b>	Quantity	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>159.394</b>	<b>342.196</b>	<b>317.164</b>	<b>0.000</b>	<b>317.164</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 694050 / AESA Radars	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207133F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207133F	12 / 98.021	15 / 59.149	- / 38.842	- / 41.962	- / -	- / 41.962
<b>Procurement</b>						
<b>Modification Item 1 of 2: AESA JEON</b>						
B Kits						
Recurring						
AESA JEON:EQUIPMENT Group B (Guard)	72 / 166.658	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 166.658	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: AESA JEON</i>	- / 166.658	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 2 of 2: AESA Radar</b>						
B Kits						
Recurring						
AESA Radar:EQUIPMENT Group B (Active)	- / -	33 / 63.873	85 / 164.883	83 / 200.431	- / -	83 / 200.431
AESA Radar:EQUIPMENT Group B (Guard)	- / -	30 / 72.431	30 / 58.194	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 136.304	- / 223.077	- / 200.431	- / -	- / 200.431
<i>Subtotal: AESA Radar</i>	- / -	- / 136.304	- / 223.077	- / 200.431	- / -	- / 200.431
<i>Subtotal: Procurement, All Modification Items</i>	- / 166.658	- / 136.304	- / 223.077	- / 200.431	- / -	- / 200.431
<b>Support (All Modification Items)</b>						
SUPPORT-EQUIP	273 / 42.864	- / 3.263	- / 8.353	- / 3.444	- / -	- / 3.444
Change Orders	- / 17.703	- / 12.998	- / 19.620	- / 8.962	- / -	- / 8.962
OTHER GOVT	- / 34.685	- / 12.454	- / 37.342	- / 46.963	- / -	- / 46.963
ICS-Labor	- / 5.372	- / -	- / 3.334	- / 1.259	- / -	- / 1.259
Mod of Spares	- / 17.040	- / 10.487	- / 45.990	- / 53.780	- / -	- / 53.780
<i>Subtotal: Support</i>	273 / 107.664	- / 19.202	- / 114.639	- / 114.408	- / -	- / 114.408
<b>Installation</b>						
<b>Modification Item 1 of 2: AESA JEON</b>	3 / 0.000	36 / 3.888	33 / 3.805	- / -	- / -	- / -
<b>Modification Item 2 of 2: AESA Radar</b>	- / -	- / -	9 / 0.675	31 / 2.325	- / -	31 / 2.325
<i>Subtotal: Installation</i>	3 / -	36 / 3.888	42 / 4.480	31 / 2.325	- / -	31 / 2.325
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>274.322</b>	<b>159.394</b>	<b>342.196</b>	<b>317.164</b>	<b>0.000</b>	<b>317.164</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2				<b>P-1 Line Item Number / Title:</b> F01600 / F-16				<b>Modification Number / Title:</b> 694050 / AESA Radars					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 2:</b> AESA JEON													
<b>Manufacturer Information</b>													
Manufacturer Name: Northrup-Grumman							Manufacturer Location: Baltimore, Maryland						
Administrative Leadtime (in Months): 1							Production Leadtime (in Months): 12						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates													
Delivery Dates													
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contract Field Team													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		3 / 0.000		36 / 3.888		33 / 3.805		- / -		- / -		- / -	
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		3 / 0.000		36 / 3.888		33 / 3.805		- / -		- / -		- / -	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	3	9	9	9	9	9	9	9	6	-	-	-	-
Out	0	3	9	9	9	9	9	9	9	6	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 694050 / AESA Radars
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 2 of 2:** AESA Radar

**Manufacturer Information**

Manufacturer Name: Northrup-Grumman		Manufacturer Location: Baltimore, Maryland	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2020	Jun 2021	Jun 2022
Delivery Dates	Jun 2021	Jun 2022	Jun 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	9 / 0.675	31 / 2.325	- / -	31 / 2.325
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	9 / 0.675	31 / 2.325	- / -	31 / 2.325

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	-	-	-	-	9	9	9	8	5
Out	0	-	-	-	-	-	-	-	1	5	5	5	5

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 704050 / Digital Radar Warning Receiver (RWR)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	16.187	49.964	0.000	49.964
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	16.187	49.964	0.000	49.964
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>16.187</b>	<b>49.964</b>	<b>0.000</b>	<b>49.964</b>

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

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

**Description:**

This program replaces legacy analog radar warning receivers (RWR: ALR-69 and ALR-56M) on the fleet of F-16 aircraft. Installation of the Digital RWR will improve threat detection fidelity resulting in increased F-16 aircraft survivability and integration with future F-16 modifications (i.e. AESA). The DRWR modification will be a depot-level modification/installation. Group A and Group B kit procurement will vary to accommodate an ALR-69, ALR-56M and potentially other aircraft configurations. Initial spares will be required for Group A and Group B kits. All Group A and Group B includes the necessary components for millimeter wave (mmW) capability. Support equipment software updates and hardware will be required, including a new Fiber Maintenance Cleaning and Inspection Kit. Contractor support is required throughout the effort. Because of potential variation in Group A modification requirements and installation schedules across 3 aircraft block configurations, the quantity and unit cost of kit procurement and hardware installation will differ from year to year depending on the mix of aircraft involved.

This program includes execution of RF compatibility (RFC) effort with associated systems.

This program includes a risk mitigation prototyping program to evaluate next-gen electronic warfare (NGEW) options that meet the DRWR requirements. This would create a dual solution approach installing a currently available ALR-69A for the Air National Guard and Reserve fleets and the newly developed advanced NGEW Suite installed on the Active Duty fleet. If NGEW prototype is successful then the buy/install schedule will be updated to account for both ALR-69A installs and NGEW installs under the DRWR program.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys, or bridge buys limited to the program of record quantity. This funding request also supports flight testing and technical data updates, as required.

**Milestone/Development Status**

Milestone C approval planned for FY21. Plan to complete development/integration efforts for Digital Radar Warning Receiver in FY18 (through FY22) for Group A Hardware, Group B Hardware and software updates. 4 Trial Verification/Vehicle Installations (TVI) and 4 Kit Proofs. Once each Kit Proof configuration is successfully completed, production buys and installs will commence for each configuration.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	1.711	3.238	-	3.238
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	14.476	46.726	-	46.726



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 704050 / Digital Radar Warning Receiver (RWR)

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	0.000	16.187	49.964	0.000	49.964

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 704050 / Digital Radar Warning Receiver (RWR)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207133F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207133F	20 / 76.282	- / 0.001	8 / 48.126	- / 63.222	- / -	- / 63.222
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Digital RWR						
A Kits						
Recurring						
Digital RWR:INSTALL KITS Group A (Guard)	- / -	- / -	11 / 4.627	29 / 13.578	- / -	29 / 13.578
<i>Subtotal: Recurring</i>	- / -	- / -	- / 4.627	- / 13.578	- / -	- / 13.578
B Kits						
Recurring						
Digital RWR:EQUIPMENT Group B (Guard)	- / -	- / -	11 / 9.849	29 / 26.983	- / -	29 / 26.983
<i>Subtotal: Recurring</i>	- / -	- / -	- / 9.849	- / 26.983	- / -	- / 26.983
<i>Subtotal: Digital RWR</i>	- / -	- / -	- / 14.476	- / 40.561	- / -	- / 40.561
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 14.476	- / 40.561	- / -	- / 40.561
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
GROUP B: TOTAL NONRECURRING	- / -	- / 0.000	- / -	- / 0.000	- / -	- / 0.000
Change Orders	- / -	- / -	- / 0.464	- / 1.200	- / -	- / 1.200
OTHER GOVT	- / -	- / -	- / 1.247	- / 2.038	- / -	- / 2.038
<i>Subtotal: Support</i>	- / -	- / 0.000	- / 1.711	- / 3.238	- / -	- / 3.238
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Digital RWR	- / -	- / -	- / -	11 / 6.165	- / -	11 / 6.165
<i>Subtotal: Installation</i>	- / -	- / -	- / -	11 / 6.165	- / -	11 / 6.165
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>16.187</b>	<b>49.964</b>	<b>0.000</b>	<b>49.964</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 704050 / Digital Radar Warning Receiver (RWR)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Digital RWR

**Manufacturer Information**

Manufacturer Name: Raytheon		Manufacturer Location: Mississippi	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 14	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	Mar 2022
Delivery Dates		May 2022	May 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	11 / 6.165	- / -	11 / 6.165
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	11 / 6.165	- / -	11 / 6.165

**Installation Schedule**

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 866250 / F-16 TRAINING SYSTEMS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	14.692	6.302	42.746	6.492	0.000	6.492
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	14.692	6.302	42.746	6.492	0.000	6.492
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>14.692</b>	<b>6.302</b>	<b>42.746</b>	<b>6.492</b>	<b>0.000</b>	<b>6.492</b>

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

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

**Description:**

The F-16 Simulators Training Program (STP) simulators program includes Weapon Systems Trainers (WST), Unit Training Devices (UTD), Mission Training Centers (MTC), and Consolidated Unit-level Trainer (CUT). Which enable the USAF to exercise and train using the latest available F-16 Fighting Falcon capabilities available to all block configurations, while reducing the overall cost of training Armed Forces in support of the warfighter mission. In order to maintain concurrency with the F-16 Fighting Falcon, this funding supports the fielding and installation of simulator modifications (i.e. trainer unique/specific modifications such as Image Generators, upgraded visual projectors enhancing the out-the-window visual acuity, and hardware modifications supporting future Operational Flight Program (OFP) upgrades). Distributed Mission Systems (DMS) efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. This funding also includes other government costs and PMA.

CUTs are medium-high fidelity training systems that facilitate F-16 CCIP Block 40/42 and 50/52 personnel training at all levels. A CUT consolidates the Weapons and Tactics Trainer (WTT) Advanced Sustainment Program (WASP) & Aircrew Training Device (ATD) requirements while utilizing the MTC software baseline, so we are not duplicating upgrades; therefore, it shall have high-fidelity software. The CUT shall be capable of operating in a distributed training environment. This includes accurately modeling all F-16 weapon systems, subsystems, and ordnances. The Program will further acquire Contractor Logistic Support (CLS) to maintain the CUTs in a fully operational status and concurrent configuration. The CUT shall be capable of operating in a distributed training environment. This includes accurately modeling all F-16 weapon systems, subsystems, and ordnances. The Program will further acquire CLS to maintain the CUTs in a fully operational status and concurrent configuration.

This funding request will support potential DMS and obsolescence solutions, to include, if optimal, life of type buys or bridge buys limited to the program of record quantity.

Continue to provide funding for M Series OFP updates to the MTC which includes support from the 40th Test Evaluation Squadron.

**Milestone/Development Status**

The development of F-16 simulators upgrades will be a continual process based on the needs of each effort. Some efforts require RDT&E funding for development, testing and integration; while other efforts require funding for only testing and integration.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	6.302	42.746	6.492	-	6.492
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force				<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 866250 / F-16 TRAINING SYSTEMS		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	6.302	42.746	6.492	0.000	6.492

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F01600 / F-16		<b>Modification Number / Title:</b> 866250 / F-16 TRAINING SYSTEMS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-16		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207133F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207133F	- / 8.604	- / 14.594	- / 4.469	- / 15.777	- / -	- / 15.777
<b>Procurement</b>						
<b>Modification Item 1 of 2: Consolidated Unit Trainer (CUT)</b>						
B Kits						
Recurring						
Consolidated Unit Trainer (CUT):EQUIPMENT Group B (Active)	- / -	- / -	39 / 39.946	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / -	- / 39.946	- / -	- / -	- / -
<i>Subtotal: Consolidated Unit Trainer (CUT)</i>	- / -	- / -	- / 39.946	- / -	- / -	- / -
<b>Modification Item 2 of 2: Trainer/Simulator kits</b>						
B Kits						
Recurring						
Trainer/Simulator kits:EQUIPMENT Group B (Active)	26 / 14.692	5 / 6.302	5 / 2.800	5 / 6.492	- / -	5 / 6.492
<i>Subtotal: Recurring</i>	- / 14.692	- / 6.302	- / 2.800	- / 6.492	- / -	- / 6.492
<i>Subtotal: Trainer/Simulator kits</i>	- / 14.692	- / 6.302	- / 2.800	- / 6.492	- / -	- / 6.492
<i>Subtotal: Procurement, All Modification Items</i>	- / 14.692	- / 6.302	- / 42.746	- / 6.492	- / -	- / 6.492
<b>Installation</b>						
<b>Modification Item 1 of 2: Consolidated Unit Trainer (CUT)</b>						
B Kits						
Recurring						
Consolidated Unit Trainer (CUT):EQUIPMENT Group B (Active)	- / -	- / -	39 / 0.000	- / -	- / -	- / -
<i>Subtotal: Installation</i>	- / -	- / -	39 / 0.000	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>14.692</b>	<b>6.302</b>	<b>42.746</b>	<b>6.492</b>	<b>0.000</b>	<b>6.492</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F01600 / F-16	<b>Modification Number / Title:</b> 866250 / F-16 TRAINING SYSTEMS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** Consolidated Unit Trainer (CUT)

**Manufacturer Information**

Manufacturer Name: L3 Communications	Manufacturer Location: Arlington, TX
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 0
<b>Dates</b>	<b>FY 2020</b>
Contract Dates	FY 2021
Delivery Dates	Feb 2021
	FY 2022
	Feb 2021

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	39 / 0.000	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	39 / 0.000	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	39	-	-	-	-	-	-	-
Out	0	-	-	-	-	-	39	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F01600 / F-16	
		<b>Modification Number / Title:</b> 866250 / F-16 TRAINING SYSTEMS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> Trainer/Simulator kits			
<b>Manufacturer Information</b>			
Manufacturer Name: L3 Communications		Manufacturer Location: Arlington, Tx	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2020	Jun 2021	Jun 2022
Delivery Dates	Jun 2021	Jun 2022	Jun 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 61	



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207138F	<b>Other Related Program Elements:</b> 0207138F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,060.532	189.047	357.586	424.722	-	424.722	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,060.532	189.047	357.586	424.722	-	424.722	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>2,060.532</b>	<b>189.047</b>	<b>357.586</b>	<b>424.722</b>	<b>-</b>	<b>424.722</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

The F-22 Raptor provides air superiority to the Joint Force, access in highly contested operational environments; as well as, homeland and cruise missile defense for the next 25+ years. The F-22 is the first operational multi-mission fighter aircraft that combines stealth, supercruise, maneuverability and integrated avionics to make it the world's most capable combat aircraft. The F-22 is currently in the post-production operations phase of its acquisition lifecycle and therefore utilizes an acquisition strategy of balanced modernization and sustainment to maintain its asymmetric war fighting advantage. F-22 modernization and sustainment programs invest in upgrades to the air vehicle, engine, and training systems to improve F-22 weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

The F-22 Raptor's Modernization Development is conducted using a rapid acquisition construct leveraging commercial best practices such as Agile and Lean. This allows the F-22 Raptor program to develop, test, and field software/hardware from multiple programs (product lines) using a scheduled cadence for capabilities as they mature. The F-22 Raptor program's utilization of these commercial best practices during production activities allows for concurrent installations of mature Group A and Group B hardware of multiple product lines, delivering warfighter capabilities to the field earlier than historical acquisition practices.

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities in FY22 and future years that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater. All modifications in this exhibit are procured with Pacific Deterrence Initiative funding.

Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill Federal Aviation Administration (FAA) or other mandates necessary to ensure continued aircrew safety and mission effectiveness.

Funding for the exhibit contained in Program (PE) 0207138F.

In accordance with Section 1815 of the FY08 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY2022 funding request was reduced by \$31.720 million to account for the availability of prior year execution balances

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force							<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft					<b>P-1 Line Item Number / Title:</b> F02200 / F-22A					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> 0207138F			<b>Other Related Program Elements:</b> 0207138F				
<b>Line Item MDAP/MAIS Code:</b> N/A										

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	184.248	346.822	414.049	-	414.049	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.799	10.764	10.673	-	10.673	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>189.047</b>	<b>357.586</b>	<b>424.722</b>	-	<b>424.722</b>	-	-	-	-

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A

<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207138F	<b>Other Related Program Elements:</b> 0207138F
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	F22014 / F119 Engine Modifications (Other)				- / 83.024	- / 4.847	- / 4.861	- / 4.981	- / -	- / 4.981
P-40a***	F22022 / Structures Retrofit Plan (Service Life Extension)				- / 275.192	- / 0.000	- / -	- / -	- / -	- / -
P-40a***	F22027 / Crypto Modernization (Capability Improvement)				- / 12.220	- / 4.259	- / 2.854	- / -	- / -	- / -
P-40a***	F22030 / Mode 5 Identification Friend or Foe (IFF) (Capability Improvement)				- / 48.596	- / -	- / -	- / 0.000	- / -	- / 0.000
P-3a	1 / Reliability and Maintainability Program (Reliability & Maintainability)		A		- / 1,461.470	- / 53.568	- / 68.839	- / 153.006	- / 0.000	- / 153.006
P-3a	2 / Link 16 (Capability Improvement)		A		- / 86.229	- / 46.031	- / 153.883	- / 52.702	- / 0.000	- / 52.702
P-3a	3 / Trainers Modernization (Safety)		A		- / 93.801	- / 31.340	- / 4.866	- / 17.208	- / 0.000	- / 17.208
P-3a	4 / Sensor Enhancement (Capability Improvement)		B		- / -	- / 49.002	- / 122.283	- / 196.825	- / 0.000	- / 196.825
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 2,060.532</b>	<b>- / 189.047</b>	<b>- / 357.586</b>	<b>- / 424.722</b>	<b>- / -</b>	<b>- / 424.722</b>

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

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

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

**Justification:**  
Modifications requesting FY22 funding are as follows: F119 Engine Modifications (Other); Trainers Modernization (Safety); Reliability and Maintainability Program (Reliability & Maintainability); Link 16 (Capability Improvement); and Sensor Enhancement (Capability Improvement). Further details are contained in the P-3A's.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 1 / Reliability and Maintainability Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1,461.470	53.568	68.839	153.006	0.000	153.006
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1,461.470	53.568	68.839	153.006	0.000	153.006
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>1,461.470</b>	<b>53.568</b>	<b>68.839</b>	<b>153.006</b>	<b>0.000</b>	<b>153.006</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

Reliability, Availability, and Maintainability Program (RAMP) provides solution identification and integration of modifications to improve reliability, availability and maintainability (RAM) for the F-22 fleet. The associated RAMP efforts (O&S funded) develop candidate initiatives, which are down-selected by Air Combat Command, for implementation based on development maturity and impact on the F-22 life cycle costs.

The RAMP program includes funding for retrofit installation labor, modifications to address corrosion, reduce maintenance hours, increase safety and provide urgent response requirements identified by the user to the F-22 fleet. Urgent response requirements are quick demand requirements addressing safety or air superiority, ensuring the warfighter and the weapon system are operating as intended. RAMP funds may be used to resolve emerging safety of flight, accommodate technology insertion and fulfill Federal Aviation Administration requirements or other mandates necessary to ensure continued aircrew safety and mission effectiveness. RAMP modifications currently include individual projects which are retrofitted onto aircraft based on aircraft downtime opportunities.

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities in FY22 and future years that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater. FY22 749 end items are being modified with PDI funding.

In FY22, RAMP kit procurement and installation will continue on projects such as: Power and reliability increase for the Main Power Generator; Core Processing Software (CORE32) which replaces 1st generation fiber optic segments per Common Integrated Processor (CIP) backplane, improving backplane fiber reliability and interoperability; Low Observable (LO) Mighty Tough Boot, which replaces less durable boot material and leads to an estimated 3% increase in aircraft reliability; replacement of Communication Navigation Identification (CNI) Air-to-Air Interrogation (AAI) Cables, eliminating all direct maintenance on cable assembly; Very High Frequency (VHF) Antenna which includes an updated antenna design allowing for the retrofit of a updated antenna core, modified spar design, and leading edge. All RAMP retrofit kits have component level improvement metrics and contribute to the overall reliability, availability, maintainability and safety of the F-22.

The change in requirement for RAMP funds from FY21 to FY22 is driven by increases in supplier costs and reliability issues with the main power generator. This effort provides additional power requirements necessary to support combat capability.

Kit installations are completed at either the depot or by a contractor field team depending on the complexity of the installation effort and scheduled aircraft downtime opportunities. Quantities are based on an assumed maturity of the solution and are subject to change over time. The average cost per kit varies based on planned retrofit kits in a given year, the complexity of the materials, and labor required to integrate/ install on the fleet.

NOTE: 20.788M is reflected in the FY20 Change Orders line to capture an FY20 PB Recission and transfer not captured in the database. Otherwise, the P-3A accurately reflects RAMP efforts.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 1 / Reliability and Maintainability Program
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

RAMP Mod funds may be used for mission support costs to include, but not limited to, travel, computer costs, and other miscellaneous contract support.

Milestone/Development Status

Installation of RAMP mods continues for 11 vetted & approved solutions in FY22 - 6 Reliability/1 Availability/4 Maintainability improvements.

	<b>Secondary Distribution</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	49.449	59.468	143.486	-	143.486
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	4.119	9.371	9.520	-	9.520
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>53.568</b>	<b>68.839</b>	<b>153.006</b>	<b>0.000</b>	<b>153.006</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 1 / Reliability and Maintainability Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-22		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b> 0207138F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: RAMP Kits</i>						
B Kits						
Recurring						
RAMP Kits:EQUIPMENT Group B (Active)	8,643 / 742.005	527 / 21.552	643 / 29.102	653 / 97.067	- / -	653 / 97.067
RAMP Kits:EQUIPMENT Group B (Guard)	1,298 / 71.903	76 / 2.773	94 / 3.430	96 / 3.500	- / -	96 / 3.500
<i>Subtotal: Recurring</i>	- / 813.908	- / 24.325	- / 32.532	- / 100.567	- / -	- / 100.567
<i>Subtotal: RAMP Kits</i>	- / 813.908	- / 24.325	- / 32.532	- / 100.567	- / -	- / 100.567
<i>Subtotal: Procurement, All Modification Items</i>	- / 813.908	- / 24.325	- / 32.532	- / 100.567	- / -	- / 100.567
<b>Support (All Modification Items)</b>						
Change Orders	- / -	- / 20.788	- / -	- / -	- / -	- / -
OTHER GOVT	- / 42.277	- / 5.763	- / 5.469	- / 5.471	- / -	- / 5.471
<i>Subtotal: Support</i>	- / 42.277	- / 26.551	- / 5.469	- / 5.471	- / -	- / 5.471
<b>Installation</b>						
<i>Modification Item 1 of 1: RAMP Kits</i>	9,941 / 605.285	603 / 2.692	737 / 30.838	749 / 46.968	- / -	749 / 46.968
<i>Subtotal: Installation</i>	9,941 / 605.285	603 / 2.692	737 / 30.838	749 / 46.968	- / -	749 / 46.968
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>1,461.470</b>	<b>53.568</b>	<b>68.839</b>	<b>153.006</b>	<b>0.000</b>	<b>153.006</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 1 / Reliability and Maintainability Program
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** RAMP Kits

**Manufacturer Information**

Manufacturer Name: Lockheed Martin		Manufacturer Location: Hill AFB	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Jan 2020	Jan 2021	Jan 2022

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1,727 / 82.887	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	211 / 1.346	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	231 / 7.426	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	235 / 12.698	- / -	235 / 12.698
<b>Total</b>	1,727 / 82.887	211 / 1.346	231 / 7.426	235 / 12.698	- / -	235 / 12.698

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1,727	53	53	53	52	57	58	58	58	58	59	59	59
Out	1,727	53	53	53	52	57	58	58	58	58	59	59	59

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8,214 / 522.398	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	392 / 1.346	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	506 / 23.412	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	514 / 34.270	- / -	514 / 34.270
<b>Total</b>	8,214 / 522.398	392 / 1.346	506 / 23.412	514 / 34.270	- / -	514 / 34.270

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force										<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2					<b>P-1 Line Item Number / Title:</b> F02200 / F-22A					<b>Modification Number / Title:</b> 1 / Reliability and Maintainability Program			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> RAMP Kits													
<b>Installation Information</b>													
<b>Method of Implementation:</b> Depot													
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	8,214	98	98	98	98	126	126	127	127	128	128	129	129
Out	8,214	98	98	98	98	126	126	127	127	128	128	129	129



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 2 / Link 16

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	86.229	46.031	153.883	52.702	0.000	52.702
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	86.229	46.031	153.883	52.702	0.000	52.702
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>86.229</b>	<b>46.031</b>	<b>153.883</b>	<b>52.702</b>	<b>0.000</b>	<b>52.702</b>

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

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

**Description:**

As part of the F-22 Rapid Fielding Middle Tier Acquisition (MTA) program, previously known as the Capability Pipeline, this effort will procure and install the hardware necessary to field Link 16 Transmit capability on the F-22 Raptor. Link 16 transmit will be fielded via Multi-functional Information Distribution Service Joint Tactical Radio System (MIDS/JTRS). Legacy Link 16 receive capabilities will be re-hosted to the MIDS JTRS. Link 16 capabilities will be enabled by Open System Architecture (OSA). Procurement of an OSA system, MIDS JTRS, L-band antennas, and other supporting hardware are required to enable Link 16 capabilities.

Link 16 will begin fielding installs in Q1 FY22 and continue through Q1 FY25. This hardware delivery includes mission support requirements and other government costs to include, but not limited to, support equipment, training devices, specialized test equipment, long-lead assets, and initial spares. Funds may be used to resolve emerging safety of flight and diminishing manufacturing sources issues, accommodate technology insertion and fulfill FAA or other mandates necessary to ensure continued aircrew safety and mission effectiveness. Mode 5 IFF Transpond will be fielded concurrently with Link-16 and will utilize the same hardware being procured for that capability. Installation for Link 16 and MIDS/JTRS items occurs at the same time so installation costs are combined in the Link 16 installation cost line.

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities in FY22 and future years that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater. In FY22 10 end items are being modified with PDI funding.

The F-22 Raptor's Modernization Development is conducted using a rapid acquisition construct leveraging commercial best practices such as Agile and Lean. This allows the F-22 Raptor program to develop, test, and field software/hardware from multiple programs (product lines) using a scheduled cadence for capabilities as they mature. The F-22 Raptor program's utilization of these commercial best practices during production activities will allow for concurrent installations of mature Group A and Group B hardware of multiple product lines, delivering warfighter capabilities to the field earlier than historical acquisition practices. Due to contracting limitations, funding for installations is required prior to 1 October each year to avoid work stoppages and maintain aircraft modification schedules.

**Milestone/Development Status**

Development is continuing. Software has been integrated onto production representative hardware and testing is in progress in system-level labs. Developmental flight test began in Q2 FY20. A production decision was approved in Q4 FY19.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	46.031	153.883	52.702	-	52.702

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force			<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 2 / Link 16		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	46.031	153.883	52.702	0.000	52.702

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 2 / Link 16	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-22		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207138F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 2:</i> Link 16						
B Kits						
Recurring						
Link 16:EQUIPMENT Group B (Active)	24 / 36.036	- / -	108 / 121.461	10 / 11.710	- / -	10 / 11.710
<i>Subtotal: Recurring</i>	- / 36.036	- / -	- / 121.461	- / 11.710	- / -	- / 11.710
<i>Subtotal: Link 16</i>	- / 36.036	- / -	- / 121.461	- / 11.710	- / -	- / 11.710
<i>Modification Item 2 of 2:</i> MIDS/JTRS						
B Kits						
Recurring						
MIDS/JTRS:EQUIPMENT Group B (Active)	56 / 45.502	66 / 37.715	5 / 3.663	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 45.502	- / 37.715	- / 3.663	- / -	- / -	- / -
<i>Subtotal: MIDS/JTRS</i>	- / 45.502	- / 37.715	- / 3.663	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 81.538	- / 37.715	- / 125.124	- / 11.710	- / -	- / 11.710
<b>Support (All Modification Items)</b>						
Change Orders	- / 0.000	- / 16.773	- / -	- / 8.522	- / -	- / 8.522
OTHER GOVT	- / 4.691	- / 1.543	- / 10.248	- / 10.176	- / -	- / 10.176
<i>Subtotal: Support</i>	- / 4.691	- / 18.316	- / 10.248	- / 18.698	- / -	- / 18.698
<b>Installation</b>						
<i>Modification Item 1 of 2:</i> Link 16	- / -	- / -	48 / 18.511	55 / 22.294	- / -	55 / 22.294
<i>Modification Item 2 of 2:</i> MIDS/JTRS	- / -	- / -	48 / 0.000	55 / 0.000	- / -	55 / 0.000
<i>Subtotal: Installation</i>	- / -	- / -	96 / 18.511	110 / 22.294	- / -	110 / 22.294
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>86.229</b>	<b>46.031</b>	<b>153.883</b>	<b>52.702</b>	<b>0.000</b>	<b>52.702</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 2 / Link 16
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** Link 16

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Ft. Worth, TX
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 13

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2021	Jun 2022
Delivery Dates		Jul 2022	Jul 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	24 / 9.256	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	24 / 9.255	55 / 22.294	- / -	55 / 22.294
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	48 / 18.511	55 / 22.294	- / -	55 / 22.294

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	-	-	-	-	-	-	-	9	6	22	11
Out	0	-	-	-	-	-	-	-	-	9	6	22	11

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 2 / Link 16
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 2 of 2:** MIDS/JTRS

**Manufacturer Information**

Manufacturer Name: Viasat		Manufacturer Location: Carlsbad, CA	
Administrative Leadtime (in Months): 4		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	May 2021	
Delivery Dates	May 2021	May 2022	

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	48 / 0.000	8 / 0.000	- / -	8 / 0.000
FY 2020	- / -	- / -	- / -	47 / 0.000	- / -	47 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	48 / 0.000	55 / 0.000	- / -	55 / 0.000

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	-	-	-	-	-	9	6	22	11
Out	0	-	-	-	-	-	-	-	-	9	6	22	11

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 3 / Trainers Modernization

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	93.801	31.340	4.866	17.208	0.000	17.208
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	93.801	31.340	4.866	17.208	0.000	17.208
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>93.801</b>	<b>31.340</b>	<b>4.866</b>	<b>17.208</b>	<b>0.000</b>	<b>17.208</b>

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

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

**Description:**

This effort modifies training devices to simulate existing and future F-22 operational capabilities and maintains alignment with the latest fleet aircraft configuration. The modifications enable 4-ship Mission Training Centers (MTC), Weapons and Tactics Trainers (WTT), and Maintenance Training Devices (MTD) to provide realistic training. Modifications also include reliability, availability, and maintainability improvements. There are currently 71 training devices (45 Pilot and 26 Maintenance). Modifications are done by contractor field teams.

F-22 Maintenance and Pilot training assets have lagged behind modernization efforts with operational aircraft. The increase in requested funding from FY21 to FY22 is focused on streamlining training qualifications and eliminating negative training due to inaccurate representations of current aircraft.

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities in FY22 and future years that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater. In FY22 32 end items are being modified with PDI funding.

Trainers Modernization funds may be used for mission support costs to include, but not limited to, travel, computer costs, and other miscellaneous contract support.

**Milestone/Development Status**

Development conducted in conjunction with Ready Aircrew Program tasking memorandums.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	31.340	4.866	17.208	-	17.208
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>31.340</b>	<b>4.866</b>	<b>17.208</b>	<b>0.000</b>	<b>17.208</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 3 / Trainers Modernization	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-22		<b>Modification Type:</b> Safety		<b>Related RDT&amp;E PEs:</b> 0207138F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Trainer Modifications						
B Kits						
Recurring						
Trainer Modifications:EQUIPMENT Group B (Active)	112 / 66.493	51 / 28.738	7 / 1.923	32 / 12.989	- / -	32 / 12.989
<i>Subtotal: Recurring</i>	- / 66.493	- / 28.738	- / 1.923	- / 12.989	- / -	- / 12.989
<i>Subtotal: Trainer Modifications</i>	- / 66.493	- / 28.738	- / 1.923	- / 12.989	- / -	- / 12.989
<i>Subtotal: Procurement, All Modification Items</i>	- / 66.493	- / 28.738	- / 1.923	- / 12.989	- / -	- / 12.989
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 12.777	- / 10.200	- / 1.976	- / 2.977	- / -	- / 12.977
<i>Subtotal: Support</i>	- / 12.777	- / 10.200	- / 1.976	- / 2.977	- / -	- / 12.977
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Trainer Modifications	112 / 24.531	51 / 2.402	7 / 0.967	32 / 1.242	- / -	32 / 1.242
<i>Subtotal: Installation</i>	112 / 24.531	51 / 2.402	7 / 0.967	32 / 1.242	- / -	32 / 1.242
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>93.801</b>	<b>31.340</b>	<b>4.866</b>	<b>17.208</b>	<b>0.000</b>	<b>17.208</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 3 / Trainers Modernization
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Trainer Modifications

**Manufacturer Information**

Manufacturer Name: Lockheed Martin		Manufacturer Location: Palmdale/Hill AFB	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Jan 2020	Jan 2021	Jan 2022

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	112 / 24.531	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	51 / 2.402	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	7 / 0.967	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	32 / 1.242	- / -	32 / 1.242
<b>Total</b>	112 / 24.531	51 / 2.402	7 / 0.967	32 / 1.242	- / -	32 / 1.242

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	112	12	13	13	13	1	2	2	2	8	8	8	8
Out	112	12	13	13	13	1	2	2	2	8	8	8	8



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 4 / Sensor Enhancement

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	49.002	122.283	196.825	0.000	196.825
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	49.002	122.283	196.825	0.000	196.825
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>49.002</b>	<b>122.283</b>	<b>196.825</b>	<b>0.000</b>	<b>196.825</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Sensor Enhancements Group A is contained in the F-22 Rapid Fielding Middle Tier Acquisition (MTA) program, previously known as the Capability Pipeline. Sensor Enhancements provides improved sensor capabilities to Block 30/35 F-22 aircraft to maintain air dominance and preserve first look, first shot, first kill capability. Funding includes 143 kits and installation.

The F-22 Raptor's Modernization Development is conducted using a rapid acquisition construct leveraging commercial best practices such as Agile and Lean. This allows the F-22 Raptor program to develop, test, and field software/hardware from multiple programs (product lines) using a scheduled cadence for capabilities as they mature. The F-22 Raptor program's utilization of these commercial best practices during production activities will allow for concurrent installations of mature Group A and Group B hardware of multiple product lines, delivering warfighter capabilities to the field earlier than historical acquisition practices. Due to contracting limitations, funding for installations is required prior to 1 October each year to avoid work stoppages and maintain aircraft modification schedules.

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities in FY22 and future years that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater. FY21-FY22 55 end items are being modified/procured with PDI funding.

Sensor Enhancement Mod funds may be used for mission support costs including, but not limited to, travel, computer costs, and other miscellaneous contract support.

NOTE: 18.964M is reflected in the FY20 Change Orders line to capture an FY20 PB Recission and transfer not captured in the database. Otherwise, the P-3A accurately reflects Sensor Enhancement efforts.

**Milestone/Development Status**

Technology development and demonstration efforts continue for Sensor Enhancements. Enabling Group A kits purchased in FY21 to deliver in FY22. Sensor Enhancements Group B development will mature through FY21 culminating in a flight test demonstration and production decision in FY22.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	49.002	122.283	196.825	-	196.825
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>49.002</b>	<b>122.283</b>	<b>196.825</b>	<b>0.000</b>	<b>196.825</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F02200 / F-22A		<b>Modification Number / Title:</b> 4 / Sensor Enhancement	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-22		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207138F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207138F	- / -	- / 190.537	- / 248.823	- / 183.619	- / -	- / 183.619
<b>Procurement</b>						
<b>Modification Item 1 of 1: Sensor Enhancements</b>						
A Kits						
Recurring						
Sensor Enhancements:INSTALL KITS Group A (Active)	- / -	32 / 26.130	39 / 26.370	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / 26.130</b>	<b>- / 26.370</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
B Kits						
Recurring						
Sensor Enhancements:EQUIPMENT Group B (Active)	- / -	- / -	5 / 77.299	11 / 166.346	- / -	11 / 166.346
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 77.299</b>	<b>- / 166.346</b>	<b>- / -</b>	<b>- / 166.346</b>
<b>Subtotal: Sensor Enhancements</b>	<b>- / -</b>	<b>- / 26.130</b>	<b>- / 103.669</b>	<b>- / 166.346</b>	<b>- / -</b>	<b>- / 166.346</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / -</b>	<b>- / 26.130</b>	<b>- / 103.669</b>	<b>- / 166.346</b>	<b>- / -</b>	<b>- / 166.346</b>
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / -	- / 3.908	- / 11.457	- / 17.371	- / -	- / 17.371
Data	- / -	- / -	- / 17.157	- / 10.491	- / -	- / 10.491
Change Orders	- / -	- / 18.964	- / -	- / -	- / -	- / -
<b>Subtotal: Support</b>	<b>- / -</b>	<b>- / 22.872</b>	<b>- / 18.614</b>	<b>- / 17.862</b>	<b>- / -</b>	<b>- / 17.862</b>
<b>Installation</b>						
<b>Modification Item 1 of 1: Sensor Enhancements</b>						
<b>Subtotal: Installation</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>44 / 12.617</b>	<b>- / -</b>	<b>44 / 12.617</b>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>49.002</b>	<b>122.283</b>	<b>196.825</b>	<b>0.000</b>	<b>196.825</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F02200 / F-22A	<b>Modification Number / Title:</b> 4 / Sensor Enhancement
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Sensor Enhancements

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Ft. Worth, TX		
Administrative Leadtime (in Months): 9	Production Leadtime (in Months): 12		
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2021	Jun 2022	
Delivery Dates	Jun 2022	Jun 2023	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	44 / 12.617	- / -	44 / 12.617
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	44 / 12.617	- / -	44 / 12.617

**Installation Schedule**

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

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft /  
BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F03500 / F-35 Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207142F **Other Related Program Elements:** 0604800F, 0604840F

**Line Item MDAP/MAIS Code:** 198

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	836.087	329.590	295.832	304.135	-	304.135	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	836.087	329.590	295.832	304.135	-	304.135	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>836.087</b>	<b>329.590</b>	<b>295.832</b>	<b>304.135</b>	-	<b>304.135</b>	-	-	-	-	-	-

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

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

**Description:**

PB22 changes include FY2022 funding increase of 150M overall to meet Services Block 4 fleet requirements. FY22 Block 4 increased by 177M with additional FY2022 funds and the realignment of funding from the concurrency OSIP due to delays in Digital Tuner Insertion Program material procurement and material delivery timelines. DTIP installs slipped to FY2023 and FY2024. FY2022 procurement effort for Block 4 is on track as the program reduced risk of development delays by offsetting program one-year from production. Material procurement for Lot 15 capabilities required in FY2022 to achieve initial aircraft installation in FY2024. Planned proposals are on track from the prime contractor to award the material procurement in FY2022.

The F-35 Joint Strike Fighter (JSF) Program will develop and deploy a family of highly common, affordable, next generation, stealthy, multi-role strike fighters that meet the needs of multiple services and countries. The United States Air Force F-35A Conventional Take Off and Landing (CTOL) line item funds modifications and retrofits to the F-35A aircraft and integrated air systems. The overall effort provides correction of deficiencies, near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are accomplished by field and depot retrofit.

In order to meet emerging deficiencies and capability upgrades, the airframe and integrated air systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate modifications to sustain and improve F-35A system operations. Concurrency changes are implemented to coincide with resources and aircraft availability.

Block upgrades provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35A platform. This modification program will bring early production aircraft and integrated systems to a common fleet configuration as fielded capabilities evolve over the course of the F-35 program.

The modification funding requested in FY22 enables several distinct efforts pertaining to the USAF F-35A aircraft to include post aircraft delivery concurrency retrofits, to correct deficiencies, the Block 4 upgrade of hardware and software to a Lot 17 production configuration, and Structural Life Limited Group 2 (SLLP2) upgrades.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES**

FY2022 begins the initial procurement of Lot 15 hardware to include Technical Refresh 3. FY2022 procures capacity tooling for Lot 16 capabilities.

The overlap of development with production and operations results in the need to manage a correction of deficiencies program and conduct retrofits on aircraft with life-limited parts or impacts to capabilities.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207142F	<b>Other Related Program Elements:</b> 0604800F, 0604840F
<b>Line Item MDAP/MAIS Code:</b> 198		
Funding for this exhibit contained in PE 0207142F.		
The FY2022 funding request was reduced by \$16.153 million to account for the availability of prior year execution balances		
BY funding totals include \$181.135M requested for the Pacific Defense Initiative.		

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207142F	<b>Other Related Program Elements:</b> 0604800F, 0604840F
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**Line Item MDAP/MAIS Code:** 198

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / Block 3i LRIP 2-5 Upgrade (Capability Improvement)		B		- / 208.635	- / 8.171	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / Block 3F LRIP 2-5 Upgrade (Capability Improvement)		B		- / 9.341	- / 0.250	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	3 / Block 3F LRIP 6-8 Upgrade (Capability Improvement)		B		- / 0.056	- / 2.800	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	4 / Concurrency (Other)		B		- / 613.443	- / 206.324	- / 135.576	- / 1.060	- / 0.000	- / 1.060
P-3a	5 / Correction of Deficiencies (Other)		B		- / 4.612	- / 92.965	- / 122.194	- / 122.518	- / 0.000	- / 122.518
P-3a	6 / Block 4 Modifications (Capability Improvement)		B		- / -	- / 19.080	- / 38.062	- / 180.557	- / 0.000	- / 180.557
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 836.087</b>	<b>- / 329.590</b>	<b>- / 295.832</b>	<b>- / 304.135</b>	<b>- / -</b>	<b>- / 304.135</b>

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

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

**Justification:**  
Basis for FY2022 budget request: F-35A Total Active Inventory is 338 aircraft based on production lots 1-13. FY 2022 funding increases for kits to support Structural Life Limited Parts Group 2 (SLLP2) continuation and incremental modification efforts for Block 4 capabilities, correction of deficiencies, propulsion, reliability and maintainability modifications in support of global F-35A operations.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 1 / Block 3i LRIP 2-5 Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	208.635	8.171	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	208.635	8.171	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>208.635</b>	<b>8.171</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

These modifications focus on upgrading Blocks 1B, 2A, and 2B aircraft from LRIPs 2-5 to a Block 3i configuration. Block 3i is a stepping stone to the Block 3F configuration. It includes the procurement of hardware for the current Block 3i configuration. The parts include new radar modules, new Integrated Core Processor (ICP) modules and rack, and new Electronic Warfare (EW) modules. The Gen III Helmet will also be introduced as part of the Block 3i upgrade. This effort includes tooling and test equipment for Military Service Depots to support the execution of the Block Upgrade program.

**Milestone/Development Status**

Not Applicable - No funding requested in FY22



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications			<b>Modification Number / Title:</b> 1 / Block 3i LRIP 2-5 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0604800F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Block 3i</i>							
B Kits							
Recurring							
Block 3i:EQUIPMENT Group B (Active)	46 / 158.409	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 158.409	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Block 3i</i>	- / 158.409	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 158.409	- / -	- / -	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -	
SIM/TRAINER	24 / 12.984	- / -	- / -	- / -	- / -	- / -	
Mod of Spares	- / 30.027	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	24 / 43.011	- / -	- / -	- / -	- / -	- / -	
<b>Installation</b>							
<i>Modification Item 1 of 1: Block 3i</i>	33 / 7.215	13 / 8.171	- / -	- / -	- / -	- / -	
<i>Subtotal: Installation</i>	33 / 7.215	13 / 8.171	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>208.635</b>	<b>8.171</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 1 / Block 3i LRIP 2-5 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Block 3i

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime (in Months): 10	Production Leadtime (in Months): 27

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	33 / 7.215	13 / 8.171	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	33 / 7.215	13 / 8.171	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	Q1	FY 2020				FY 2021				FY 2022			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	33	4	3	3	3	-	-	-	-	-	-	-	-
Out	33	4	3	3	3	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 2 / Block 3F LRIP 2-5 Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9.341	0.250	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	9.341	0.250	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>9.341</b>	<b>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This effort (MN-F3514) focuses on the Block 3F configuration upgrade effort for 46 LRIP 2-5 aircraft and integrated systems. All of the LRIP 2-5 F-35A aircraft receiving the Block 3F software under this modification will have already received the Block 3i hardware under MNF3513. This effort purchases all necessary software and installation labor to ensure LRIP 2-5 F-35A aircraft are upgraded to a Block 3F baseline for full warfighting capability.

**Milestone/Development Status**

The Block 3F modifications and retrofits program will complete its final aircraft induction by September 2021. Modifications of the final aircraft delayed one year due to repairs necessary after AF-40 incident.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications			<b>Modification Number / Title:</b> 2 / Block 3F LRIP 2-5 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0604800F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Block 3F							
B Kits							
Recurring							
Block 3F:EQUIPMENT Group B (Active)	46 / 9.337	- / 0.250	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 9.337	- / 0.250	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Block 3F</i>	- / 9.337	- / 0.250	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 9.337	- / 0.250	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>							
SIM/TRAINER	4 / 0.004	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	4 / 0.004	- / -	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Block 3F	33 / 0.000	13 / 0.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	33 / 0.000	13 / 0.000	- / -	- / -	- / -	- / -	- / -
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>9.341</b>	<b>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2				<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications				<b>Modification Number / Title:</b> 2 / Block 3F LRIP 2-5 Upgrade					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> Block 3F													
<b>Manufacturer Information</b>													
Manufacturer Name: Lockheed Martin							Manufacturer Location: Fort Worth						
Administrative Leadtime (in Months): 10							Production Leadtime (in Months): 3						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates													
Delivery Dates													
<b>Installation Information</b>													
<b>Method of Implementation:</b> Depot Field Team													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		33 / 0.000		13 / 0.000		- / -		- / -		- / -		- / -	
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		33 / 0.000		13 / 0.000		- / -		- / -		- / -		- / -	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	33	4	3	3	3	-	-	-	-	-	-	-	-
Out	33	4	3	3	3	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 3 / Block 3F LRIP 6-8 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.056	2.800	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.056	2.800	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.056</b>	<b>2.800</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

The block upgrade program retrofits United States Air Force F-35A aircraft and integrated systems procured under the LRIP contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

These modifications focus on the Block 3F configuration upgrade effort for 56 LRIP 6-8 F-35A aircraft and integrated systems. All of the LRIP 6-8 F-35A aircraft receiving the Block 3F software under this modification will have already received the Block 3i hardware under MN-F3513. This effort purchases all necessary software and installation labor to ensure LRIP 6-8 F-35A aircraft are upgraded to a Block 3F baseline for full warfighting capability.

**Milestone/Development Status**

The Block 3F modifications and retrofits program will complete its final aircraft induction by September 2021. Modifications of the final aircraft delayed one year due to repairs necessary after AF-40 incident.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications			<b>Modification Number / Title:</b> 3 / Block 3F LRIP 6-8 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0604800F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Block 3F (2)							
B Kits							
Recurring							
Block 3F:EQUIPMENT Group B (Active)	0 / 0.056	56 / 2.800	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.056	- / 2.800	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Block 3F (2)</i>	- / 0.056	- / 2.800	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.056	- / 2.800	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>							
SUPPORT-EQUIP	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Block 3F (2)	- / -	56 / 0.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	- / -	56 / 0.000	- / -	- / -	- / -	- / -	- / -
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.056</b>	<b>2.800</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2				<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications				<b>Modification Number / Title:</b> 3 / Block 3F LRIP 6-8 Upgrade					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> Block 3F (2)													
<b>Manufacturer Information</b>													
Manufacturer Name: Lockheed Martin							Manufacturer Location: Fort Worth						
Administrative Leadtime (in Months): 0							Production Leadtime (in Months): 12						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates		Oct 2019											
Delivery Dates		Oct 2020											
<b>Installation Information</b>													
<b>Method of Implementation:</b> Depot Field Team													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2020		- / -		56 / 0.000		- / -		- / -		- / -		- / -	
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		- / -		56 / 0.000		- / -		- / -		- / -		- / -	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	15	15	15	11	-	-	-	-	-	-	-	-
Out	0	15	15	15	11	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 4 / Concurrency

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	613.443	206.324	135.576	1.060	0.000	1.060
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	613.443	206.324	135.576	1.060	0.000	1.060
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>613.443</b>	<b>206.324</b>	<b>135.576</b>	<b>1.060</b>	<b>0.000</b>	<b>1.060</b>

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

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

**Description:**

Funding realigned in FY2022 to Block 4 due to delays in Digital Tuner Insertion Program (DTIP) material procurement and material delivery timelines. DTIP installs slipped to and funded in FY2023 and FY2024.

This effort funds retrofits due to concurrency changes to correct deficiencies tied to the Joint Contract Specification and discovered after formal acceptance (DD-250) of the last aircraft in a given production lot. This includes modifications required to extend aircraft service life currently limited by low-life parts and relieve capability limitations driven by concurrency of production with development.

The concurrency funding line will procure concurrency modifications approved at the Joint Configuration Control Board (JCCB) and prioritized within the Modifications Requirements Planning Document (MRPD). The MRPD is vetted and approved by the Services and Partners every six months to ensure that the list accurately reflects existing requirements as well as emerging issues. Per-kit costs will vary for each modification being implemented, and in some cases, will also vary by aircraft from different LRIP lots to implement an individual modification.

Total cost reflects procurement and installation costs in each fiscal year. Support costs include overall modification program planning, scheduling, and management and support of Military and Service Depots and Depot Field Teams for incorporation of modifications.

FY2021 is the transition from Concurrency to Correction of Deficiencies with the exception of Digital Tuner Insertion Program (DTIP) modification. The DTIP program modifies 148 aircraft consisting of Lots 5-10 to a Lot 11 configuration. Currently Lot 5-10 aircraft are equipped with Digital Radio Frequency Memory, which is not compatible with the Technical Refresh 3 (TR-3) upgrade program as part of Block 4. Lot 11 DTIP is required to transition aircraft to TR-3 and Lot 15 configuration and directly enables the training fleet to be standardized with the combat coded aircraft fleet.

**Milestone/Development Status**

For the F-35 program, the emergence of new concurrency issues is expected to phase out with the completion of SDD. FY 2021 is the transition point from Concurrency to Correction of Deficiencies.

FY20 started the Non-Recurring engineering for Digital Tuner Insertion Program with material procurement in 3rd Quarter FY20.

Due to the delay in contract award and material lead times, FY2022 install funding was removed and requirements shifted into FY2023/FY2024 to support the updated schedule. Funds realigned to Block 4 Kit procurement.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 4 / Concurrency	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 2: Concurrency</b>						
A Kits						
Recurring						
Concurrency:INSTALL KITS Group A (Active)	- / 560.660	- / 15.000	- / -	- / 0.000	- / -	- / 0.000
<b>Subtotal: Recurring</b>	<b>- / 560.660</b>	<b>- / 15.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>
<b>Subtotal: Concurrency</b>	<b>- / 560.660</b>	<b>- / 15.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>
<b>Modification Item 2 of 2: Digital Tuner Insertion Program (DTIP)</b>						
A Kits						
Recurring						
Digital Tuner Insertion Program (DTIP):INSTALL KITS Group A (Active)	- / -	78 / 156.000	70 / 121.483	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / 156.000</b>	<b>- / 121.483</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Digital Tuner Insertion Program (DTIP)</b>	<b>- / -</b>	<b>- / 156.000</b>	<b>- / 121.483</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 560.660</b>	<b>- / 171.000</b>	<b>- / 121.483</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>
<b>Support (All Modification Items)</b>						
ICS-Labor	- / 38.691	- / 28.539	- / 2.763	- / 1.060	- / -	- / 1.060
OTHER GOVT	- / 14.092	- / 6.785	- / -	- / 0.000	- / -	- / 0.000
<b>Subtotal: Support</b>	<b>- / 52.783</b>	<b>- / 35.324</b>	<b>- / 2.763</b>	<b>- / 1.060</b>	<b>- / -</b>	<b>- / 1.060</b>
<b>Installation</b>						
<b>Modification Item 2 of 2: Digital Tuner Insertion Program (DTIP)</b>						
<b>Subtotal: Installation</b>	<b>- / -</b>	<b>- / -</b>	<b>39 / 11.330</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>613.443</b>	<b>206.324</b>	<b>135.576</b>	<b>1.060</b>	<b>0.000</b>	<b>1.060</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 2:</b> Concurrency			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	
Delivery Dates	Dec 2019	Dec 2020	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 4 / Concurrency

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** Digital Tuner Insertion Program (DTIP)

**Manufacturer Information**

Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 7		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	May 2021	
Delivery Dates	May 2021	May 2022	

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	39 / 11.330	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	39 / 11.330	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	0	-	-	-	-	-	-	20	19	-	-	-	-
Out	0	-	-	-	-	-	-	-	-	-	-	20	19

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications			<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		4.612	92.965	122.194	122.518	0.000	122.518
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		4.612	92.965	122.194	122.518	0.000	122.518
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>4.612</b>	<b>92.965</b>	<b>122.194</b>	<b>122.518</b>	<b>0.000</b>	<b>122.518</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

Overall funding in FY2022 changed slightly (\$0.6M), however, funding distribution between material procurement decreased while installation costs increased. Material procurements delayed for Structural Life Limited Parts (SLLP) due to delays in SDD non-recurring engineering and proposal timing. In addition, the program provided ECP by ECP details for SLLP material procurements to provide required transparency to support the budget submission. SLLP material costs differences between first year and subsequent years is due to cost share agreements between the government and the prime contractor.

Support costs in FY2022: due to budgeting software limitations, certain support costs were combined into single lines for ICS, Group A Nonrecurring, Group B Nonrecurring, and Other GOVT costs. A more detailed breakout of support costs is as follows:

- The ICS-labor cost shown (\$33.483M) represents a combination of SLLP Program Support (\$16.826M), CoD Program Support (\$10.793M), Depot Site Support SLLP2 (\$4.687M), and Depot Site Support CoD (\$1.177M).
- The Group A Nonrecurring cost shown (\$1.675) represents a combination of SLLP2 NRE (\$0.670M) and SLLP3 NRE (\$1.005M).
- The Group B Nonrecurring cost shown (\$4.564M) represents CoD NRE.
- The OTHER GOVT cost shown (\$2.660M) includes support costs for Propulsion and RMIP.

Modification Item 9 of 38 "COMMON: Correction of Deficiencies: Equipment Group B represents a combination of SLLP2 and SLLP3 tooling, which for FY2022 is solely SLLP2 tooling (\$0.490M).

FY2021 control will be reduced by \$20M for the congressional add for RMIP and will be complete once the internal transfer to APN-1 is complete.

F-35 CTOL Correction of Deficiencies (CoD) provides near and long term improvements to fielded F-35 jets and focuses on correcting documented deficiencies related to safety, life limits, and aircraft systems. Funds are required to manage, prepare, process and incorporate Engineering Change Proposals (ECP) to sustain and improve F-35A system operations. Artisans at the organic depot and contractor field teams perform the installation of these modifications and selected component changes into the Air System. In order to meet emerging deficiencies, the airframe and integrated systems require modifications to resolve the identified deficiencies.

This major thrust under this OSIP is structural life limited parts 2 (SLLP) deficiencies. The SLLP2 program focuses on resolving identified life limits between 2,000 and 4,000 flight hours. Currently, 18 ECPs make up the SLLP2 program scope, requiring a retrofit solution to remove the life limit constraint. The program is still establishing the full scope of modifications for both SLLP2 and SLLP3. Teardown of full-scale durability tests assists completed in July 2019 with analysis continuing through Q2 of calendar year 2020. The program expects to identify additional Engineering Change Proposals during analysis and through continued fleet operations that will require additional non-recurring engineering and tooling.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
<p>Prior to the transition to the Correction of Deficiencies OSIP in FY20, previous years SLLP2 ECP Non-Recurring Engineering and material procurement completed under the USAF concurrency budget line. Eight of the eighteen engineering change proposals have completed engineering and initial material procurement for FY22 installs.</p> <p>SLLP2 inductions will start in Fiscal Year 2021 with 84 USAF F-35A inductions. The retrofit ECP effectively of SLLP modification deficiencies vary, ranging from Lot 1 through Lot 13 USAF aircraft that will undergo installations.</p> <p>Additionally, this OSIP covers the SLLP2 follow-on program known as SLLP3. SLLP3 is the follow on effort to resolve life limits from 4,000 to 8,000 hours, enabling the aircraft to meet full life of 8,000 flight hours. The SLLP3 program starts Non-Recurring Engineering in FY2022.</p> <p>Beyond SLLP 2 and 3, there are currently over 200+ identified deficiency modifications throughout the CTOL fleet. Funds from this OSIP is required to complete non-recurring engineering, material procurement, and installation.</p> <p>Funding under this OSIP in FY22 is required to support Structural Life Limited Mods material, installation labor and associated support costs across two US organic Depots for F-35A inductions. This includes modifications management, depot site support, and depot over and above activities.</p> <p>- FY22 Depot level installs consist of SLLP2 including F-35A FS 402 UPPER FRAME DURABILITY LIFE , F-35A CENTER FUSELAGE F2 FLOOR DURABILITY LIFE, F-35A- FS 503 FRAME, LIFE LIMITED-MOD, F-35A FS402 RHS FRAME SHORT LIFE (MOD), F-35A LHS METALLIC FWD CHINE LONGERON CRACKS-MOD, F-35A UPPER INLET DUCT LONGERON DURABILITY (MOD), F-35A VT FWD SHEAR FITTING BUSH WEAR MOD and F-35A, FS 518 BULKHEAD, LIFE LIMITED - MOD .</p> <p>- FY22 COD Depot installs consist of F-35A Dual Flex Coupling, GEN 3 Helmet Mounted Display System, Gun Forward Mount Muzzle Sleeve Nut Plate, Horizontal Elevated Temp Coating, Nacelle Engine Liner Insulation material, FS346 CTOL Chem Film in Hoist Region, Update to Antenna Switch Unit; Weapons Bay Door Drive Flex Cable Redesign, 270V Battery Installation Retrofit, CM Door Control Correction, CTOL Engine Feed Tube Contact with 496 Bulkhead, and CTOL Fuel Dump Performance Improvement.</p> <p><b>Propulsion</b> This Propulsion Program is established for the correction of engine related readiness degraders impacting F-35 CTOL Reliability Maintainability and Availability (RM&amp;A), production deficiencies, obsolescence, and reduction of life-cycle costs. These modifications (MODs) will be accomplished by field or depot retrofit and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the propulsion systems must be modified as critical RM&amp;A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35 CTOL F-135 engine.</p> <p>Propulsion programs include but are not limited to Lockwireless Fittings, Thrust Recovery, Electronic Ice Protection System (EIPS), Multi-attitude Deaerator (MAD) Gearbox redesign, Main Fuel Throttle Valve (MFTV) Bellows/Electro-Hydraulic Servo Valve (EHSV), Gearbox Idler; Nozzle Wear Tilt Improvement, and Heaterless Nosecone Elimination.</p> <p><b>Reliability and Maintainability</b> This Operational Safety Improvement Program is established for the correction of readiness degraders impacting F-35 CTOL cost per flight hour, Reliability Maintainability and Availability (RM&amp;A), obsolescence, and reduction of life-cycle costs. These modifications will be accomplished by field mod team and implemented to coincide with resources and aircraft availability.</p> <p>In order to meet the goal of increasing readiness, the airframe and integrated systems must be modified as critical RM&amp;A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECPs). Individual ECPs will be listed once identified. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35 CTOL Aircraft platform. Reliability and maintainability efforts started in FY2019 resulted from the Secretary of Defense's 80% Mission Capability mandate. These efforts are used to close the gap to 80% or further improve the reliability and maintainability of the weapon system.</p> <p><b>Milestone/Development Status</b></p> <p>Due to non-recurring engineering delays under SDD, FY22 efforts shifted material funding to installs based on the latest Depot Flow Plan for both Gov't and contractor install efforts. Also, the program broke out additional categories for support for both SLLP efforts and COD.</p>		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>	
<p>Material Kit cost differences from year to year for SLLP2/3 efforts reflect cost share ratio between the government and contractor. The program is still working to fully identify all SLLP3 remaining efforts and should understand the level of scope by December 2021.</p> <p>Propulsion and Reliability and Maintainability modification efforts will transition out of Correction of Deficiencies and into their own modification lines in the FY23 budget submission.</p>		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 24:</b> 1) Correction of Deficiencies (roll-up & install) [B-kits]						
A Kits						
Recurring						
1) Correction of Deficiencies (roll-up & install) [B-kits]:INSTALL KITS Group A (Active)	- / -	812 / 19.959	45 / 12.561	45 / 13.655	- / -	45 / 13.655
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / 19.959</i>	<i>- / 12.561</i>	<i>- / 13.655</i>	<i>- / -</i>	<i>- / 13.655</i>
<i>Subtotal: 1) Correction of Deficiencies (roll-up &amp; install) [B-kits]</i>	<i>- / -</i>	<i>- / 19.959</i>	<i>- / 12.561</i>	<i>- / 13.655</i>	<i>- / -</i>	<i>- / 13.655</i>
<b>Modification Item 2 of 24:</b> 1.1) CoD ECP-1383C1 VEHICLE MISSION COMPUTER UPGRADE						
B Kits						
Recurring						
1.1) CoD ECP-1383C1 VEHICLE MISSION COMPUTER UPGRADE:EQUIPMENT Group B (Active)	- / -	45 / 0.423	45 / 0.439	45 / 0.435	- / -	45 / 0.435
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / 0.423</i>	<i>- / 0.439</i>	<i>- / 0.435</i>	<i>- / -</i>	<i>- / 0.435</i>
<i>Subtotal: 1.1) CoD ECP-1383C1 VEHICLE MISSION COMPUTER UPGRADE</i>	<i>- / -</i>	<i>- / 0.423</i>	<i>- / 0.439</i>	<i>- / 0.435</i>	<i>- / -</i>	<i>- / 0.435</i>
<b>Modification Item 3 of 24:</b> 1.2) CoD ECP-0701 FULLY QUALIFIED F-35A NOSE LANDING GEAR RETROFIT						
B Kits						
Recurring						
1.2) CoD ECP-0701 FULLY QUALIFIED F-35A NOSE LANDING GEAR RETROFIT:EQUIPMENT Group B (Active)	- / -	127 / 3.717	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / 3.717</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: 1.2) CoD ECP-0701 FULLY QUALIFIED F-35A NOSE LANDING GEAR RETROFIT</i>	<i>- / -</i>	<i>- / 3.717</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Modification Item 4 of 24:</b> 1.3) CoD ECP-1008 MOORING RING RETROFIT						
B Kits						
Recurring						
1.3) CoD ECP-1008 MOORING RING RETROFIT:EQUIPMENT Group B (Active)	- / -	359 / 9.552	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / 9.552</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: 1.3) CoD ECP-1008 MOORING RING RETROFIT</i>	- / -	- / 9.552	- / -	- / -	- / -	- / -
<b>Modification Item 5 of 24:</b> 1.4) CoD ECP-1134 NOSE WHEEL STEERING MOTOR CRACKS						
B Kits						
Recurring						
1.4) CoD ECP-1134 NOSE WHEEL STEERING MOTOR CRACKS:EQUIPMENT Group B (Active)	- / -	281 / 7.537	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 7.537	- / -	- / -	- / -	- / -
<i>Subtotal: 1.4) CoD ECP-1134 NOSE WHEEL STEERING MOTOR CRACKS</i>	- / -	- / 7.537	- / -	- / -	- / -	- / -
<b>Modification Item 6 of 24:</b> 2) Propulsion						
A Kits						
Recurring						
2) Propulsion:INSTALL KITS Group A (Active)	- / -	- / -	- / -	29 / 5.800	- / -	29 / 5.800
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 5.800	- / -	- / 5.800
<i>Subtotal: 2) Propulsion</i>	- / -	- / -	- / -	- / 5.800	- / -	- / 5.800
<b>Modification Item 7 of 24:</b> 3) Reliability and Maintainability						
A Kits						
Recurring						
3) Reliability and Maintainability:INSTALL KITS Group A (Active)	- / -	- / -	- / -	21 / 1.600	- / -	21 / 1.600
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.600	- / -	- / 1.600
<i>Subtotal: 3) Reliability and Maintainability</i>	- / -	- / -	- / -	- / 1.600	- / -	- / 1.600
<b>Modification Item 8 of 24:</b> 4) Structural Life Limited Parts (roll-up & install)						
A Kits						
Recurring						
4) Structural Life Limited Parts (roll-up & install):INSTALL KITS Group A (Active)	- / -	448 / 0.001	510 / 0.001	331 / 0.001	- / -	331 / 0.001
<i>Subtotal: Recurring</i>	- / -	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.001
<i>Subtotal: 4) Structural Life Limited Parts (roll-up &amp; install)</i>	- / -	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.001

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Modification Item 9 of 24:</b> COMMON: Correction of Deficiencies: Equipment Group B						
B Kits						
Recurring						
COMMON: Correction of Deficiencies: Equipment Group B:EQUIPMENT Group B (Active)	- / -	- / 1.653	- / 0.245	- / 0.490	- / -	- / 0.490
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / 1.653</i>	<i>- / 0.245</i>	<i>- / 0.490</i>	<i>- / -</i>	<i>- / 0.490</i>
<i>Subtotal: COMMON: Correction of Deficiencies: Equipment Group B</i>	<i>- / -</i>	<i>- / 1.653</i>	<i>- / 0.245</i>	<i>- / 0.490</i>	<i>- / -</i>	<i>- / 0.490</i>
<b>Modification Item 10 of 24:</b> SLLP ECP-0335 FS503 FRAME						
A Kits						
Recurring						
SLLP ECP-0335 FS503 FRAME:INSTALL KITS Group A (Active)	100 / 1.388	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 1.388</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: SLLP ECP-0335 FS503 FRAME</i>	<i>- / 1.388</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Modification Item 11 of 24:</b> SLLP ECP-0428 FS402 RHS FRAME						
A Kits						
Recurring						
SLLP ECP-0428 FS402 RHS FRAME:INSTALL KITS Group A (Active)	80 / 0.032	25 / 0.010	25 / 0.010	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 0.032</i>	<i>- / 0.010</i>	<i>- / 0.010</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: SLLP ECP-0428 FS402 RHS FRAME</i>	<i>- / 0.032</i>	<i>- / 0.010</i>	<i>- / 0.010</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Modification Item 12 of 24:</b> SLLP ECP-0525R1/R2 FS402 UPPER FRAME						
A Kits						
Recurring						
SLLP ECP-0525R1/R2 FS402 UPPER FRAME:INSTALL KITS Group A (Active)	117 / 0.249	31 / 0.068	3 / 0.008	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 0.249</i>	<i>- / 0.068</i>	<i>- / 0.008</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: SLLP ECP-0525R1/R2 FS402 UPPER FRAME</i>	<i>- / 0.249</i>	<i>- / 0.068</i>	<i>- / 0.008</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Modification Item 13 of 24:</b> SLLP ECP-0557 CENTER FUSELAGE F2 FLOOR						

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
A Kits						
Recurring						
SLLP ECP-0557 CENTER FUSELAGE F2 FLOOR:INSTALL KITS Group A (Active)	- / -	40 / 0.720	39 / 0.702	39 / 0.702	- / -	39 / 0.702
<i>Subtotal: Recurring</i>	- / -	- / 0.720	- / 0.702	- / 0.702	- / -	- / 0.702
<i>Subtotal: SLLP ECP-0557 CENTER FUSELAGE F2 FLOOR</i>	- / -	- / 0.720	- / 0.702	- / 0.702	- / -	- / 0.702
<b>Modification Item 14 of 24:</b> SLLP ECP-0628 BULKHEAD FS450, 472, 518 & 556						
A Kits						
Recurring						
SLLP ECP-0628 BULKHEAD FS450, 472, 518 & 556:INSTALL KITS Group A (Active)	24 / 2.185	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 2.185	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-0628 BULKHEAD FS450, 472, 518 &amp; 556</i>	- / 2.185	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 15 of 24:</b> SLLP ECP-0630 FUEL FLOOR FS496-556						
A Kits						
Recurring						
SLLP ECP-0630 FUEL FLOOR FS496-556:INSTALL KITS Group A (Active)	32 / 0.490	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.490	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-0630 FUEL FLOOR FS496-556</i>	- / 0.490	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 16 of 24:</b> SLLP ECP-0698 FS496 BULKHEAD TRUNNION						
A Kits						
Recurring						
SLLP ECP-0698 FS496 BULKHEAD TRUNNION:INSTALL KITS Group A (Active)	14 / 0.001	1 / 0.001	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.001	- / 0.001	- / -	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-0698 FS496 BULKHEAD TRUNNION</i>	- / 0.001	- / 0.001	- / -	- / -	- / -	- / -
<b>Modification Item 17 of 24:</b> SLLP ECP-0754 FS518 BULKHEAD (LRIP 1-12)						
A Kits						

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Recurring						
SLLP ECP-0754 FS518 BULKHEAD (LRIP 1-12):INSTALL KITS Group A (Active)	86 / 0.267	59 / 0.042	43 / 0.023	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.267	- / 0.042	- / 0.023	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-0754 FS518 BULKHEAD (LRIP 1-12)</i>	- / 0.267	- / 0.042	- / 0.023	- / -	- / -	- / -
<b>Modification Item 18 of 24:</b> SLLP ECP-0847 VT FWD SHEAR FITTING BUSH						
A Kits						
Recurring						
SLLP ECP-0847 VT FWD SHEAR FITTING BUSH:INSTALL KITS Group A (Active)	- / -	87 / 0.323	87 / 0.242	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 0.323	- / 0.242	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-0847 VT FWD SHEAR FITTING BUSH</i>	- / -	- / 0.323	- / 0.242	- / -	- / -	- / -
<b>Modification Item 19 of 24:</b> SLLP ECP-1065 F1 FEED TANK UPPER COVERS LIMITED LIFE						
A Kits						
Recurring						
SLLP ECP-1065 F1 FEED TANK UPPER COVERS LIMITED LIFE:INSTALL KITS Group A (Active)	- / -	- / -	85 / 1.530	83 / 1.494	- / -	83 / 1.494
<i>Subtotal: Recurring</i>	- / -	- / -	- / 1.530	- / 1.494	- / -	- / 1.494
<i>Subtotal: SLLP ECP-1065 F1 FEED TANK UPPER COVERS LIMITED LIFE</i>	- / -	- / -	- / 1.530	- / 1.494	- / -	- / 1.494
<b>Modification Item 20 of 24:</b> SLLP ECP-1130 UPPER INLET DUCT LONGERON (Lot 1-12)						
A Kits						
Recurring						
SLLP ECP-1130 UPPER INLET DUCT LONGERON (Lot 1-12):INSTALL KITS Group A (Active)	- / -	31 / 0.139	109 / 0.709	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 0.139	- / 0.709	- / -	- / -	- / -
<i>Subtotal: SLLP ECP-1130 UPPER INLET DUCT LONGERON (Lot 1-12)</i>	- / -	- / 0.139	- / 0.709	- / -	- / -	- / -
<b>Modification Item 21 of 24:</b> SLLP ECP-1220 FS402 UPPER OUTBOARD FRAMES						
A Kits						

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Recurring						
SLLP ECP-1220 FS402 UPPER OUTBOARD FRAMES:INSTALL KITS Group A (Active)	- / -	80 / 0.720	80 / 0.720	80 / 0.837	- / -	80 / 0.837
<i>Subtotal: Recurring</i>	- / -	- / 0.720	- / 0.720	- / 0.837	- / -	- / 0.837
<i>Subtotal: SLLP ECP-1220 FS402 UPPER OUTBOARD FRAMES</i>	- / -	- / 0.720	- / 0.720	- / 0.837	- / -	- / 0.837
<b>Modification Item 22 of 24:</b> SLLP ECP-1246 LHS METALLIC FWD CHINE LONGERON						
A Kits						
Recurring						
SLLP ECP-1246 LHS METALLIC FWD CHINE LONGERON:INSTALL KITS Group A (Active)	- / -	94 / 0.778	39 / 0.277	2 / 0.017	- / -	2 / 0.017
<i>Subtotal: Recurring</i>	- / -	- / 0.778	- / 0.277	- / 0.017	- / -	- / 0.017
<i>Subtotal: SLLP ECP-1246 LHS METALLIC FWD CHINE LONGERON</i>	- / -	- / 0.778	- / 0.277	- / 0.017	- / -	- / 0.017
<b>Modification Item 23 of 24:</b> SLLP ECP-1406 GUN BLAST SKIN						
A Kits						
Recurring						
SLLP ECP-1406 GUN BLAST SKIN:INSTALL KITS Group A (Active)	- / -	- / -	- / -	35 / 0.875	- / -	35 / 0.875
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 0.875	- / -	- / 0.875
<i>Subtotal: SLLP ECP-1406 GUN BLAST SKIN</i>	- / -	- / -	- / -	- / 0.875	- / -	- / 0.875
<b>Modification Item 24 of 24:</b> SLLP ECP-1441 FS402 UPPER FRAME						
A Kits						
Recurring						
SLLP ECP-1441 FS402 UPPER FRAME:INSTALL KITS Group A (Active)	- / -	- / -	- / -	92 / 1.656	- / -	92 / 1.656
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.656	- / -	- / 1.656
<i>Subtotal: SLLP ECP-1441 FS402 UPPER FRAME</i>	- / -	- / -	- / -	- / 1.656	- / -	- / 1.656
<i>Subtotal: Procurement, All Modification Items</i>	- / 4.612	- / 45.643	- / 17.467	- / 27.562	- / -	- / 27.562
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 2.010	- / 1.675	- / -	- / 1.675
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / 4.992	- / 4.564	- / -	- / 4.564

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 5 / Correction of Deficiencies	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0604800F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
ICS-Labor	- / -	- / 16.535	- / 32.625	- / 33.483	- / -	- / 33.483
OTHER GOVT	- / -	- / 11.620	- / 29.000	- / 2.660	- / -	- / 2.660
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / 28.155</i>	<i>- / 68.627</i>	<i>- / 42.382</i>	<i>- / -</i>	<i>- / 42.382</i>
<b>Installation</b>						
<b>Modification Item 1 of 24:</b> 1) Correction of Deficiencies (roll-up & install) [B-kits]	- / -	- / -	- / -	0 / 12.207	- / -	0 / 12.207
<b>Modification Item 8 of 24:</b> 4) Structural Life Limited Parts (roll-up & install)	- / -	0 / 19.167	448 / 36.100	510 / 40.367	- / -	510 / 40.367
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / 19.167</i>	<i>448 / 36.100</i>	<i>510 / 52.574</i>	<i>- / -</i>	<i>510 / 52.574</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>4.612</b>	<b>92.965</b>	<b>122.194</b>	<b>122.518</b>	<b>0.000</b>	<b>122.518</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 24:** 1) Correction of Deficiencies (roll-up & install) [B-kits]

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 9.386	- / -	0 / 9.386
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	0 / 9.386	- / -	0 / 9.386

**Installation Schedule**

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

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 2.821	- / -	0 / 2.821
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	0 / 2.821	- / -	0 / 2.821

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force											<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2					<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications					<b>Modification Number / Title:</b> 5 / Correction of Deficiencies				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B								<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 24:</b> 1) Correction of Deficiencies (roll-up & install) [B-kits]														
<b>Installation Information</b>														
<b>Method of Implementation:</b> Depot														
<b>Installation Schedule</b>														
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	
In	0	-	-	-	-	-	-	-	-	-	-	-	-	
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 24:</b> 1.1) CoD ECP-1383C1 VEHICLE MISSION COMPUTER UPGRADE			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 3 of 24:</b> 1.2) CoD ECP-0701 FULLY QUALIFIED F-35A NOSE LANDING GEAR RETROFIT			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020		
Delivery Dates	Mar 2021		
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 4 of 24:</b> 1.3) CoD ECP-1008 MOORING RING RETROFIT			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020		
Delivery Dates	Mar 2021		
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 5 of 24:</b> 1.4) CoD ECP-1134 NOSE WHEEL STEERING MOTOR CRACKS			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020		
Delivery Dates	Mar 2021		
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 6 of 24:** 2) Propulsion

**Manufacturer Information**

Manufacturer Name: Pratt Whitney	Manufacturer Location: Fort Worth, TX
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Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2021
Delivery Dates			Dec 2022

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 7 of 24:** 3) Reliability and Maintainability

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth, TX
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2021
Delivery Dates			Dec 2022

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

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

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 5 / Correction of Deficiencies
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 8 of 24:** 4) Structural Life Limited Parts (roll-up & install)

**Manufacturer Information**

Manufacturer Name: Lockheed Martin Manufacturer Location: Fort Worth

Administrative Leadtime (in Months): 5 Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	33 / 2.822	- / -	33 / 2.822
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	33 / 2.822	- / -	33 / 2.822

**Installation Schedule**

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

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 19.167	448 / 36.100	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	477 / 37.545	- / -	477 / 37.545
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	0 / 19.167	448 / 36.100	477 / 37.545	- / -	477 / 37.545

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force											<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2						<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications					<b>Modification Number / Title:</b> 5 / Correction of Deficiencies			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B											<b>MDAP/MAIS Code:</b>			
<b>Modification Item 8 of 24:</b> 4) Structural Life Limited Parts (roll-up & install)														
<b>Installation Information</b>														
<b>Method of Implementation:</b> Depot														
<b>Installation Schedule</b>														
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	
In	0	-	60	61	61	-	149	149	150	-	159	159	159	
Out	0	-	-	-	-	-	60	61	61	-	149	149	150	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>Modification Number / Title:</b> 5 / Correction of Deficiencies		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 9 of 24:</b> COMMON: Correction of Deficiencies: Equipment Group B			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 10 of 24:</b> SLLP ECP-0335 FS503 FRAME			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 100	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 11 of 24:</b> SLLP ECP-0428 FS402 RHS FRAME			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 130	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 12 of 24:</b> SLLP ECP-0525R1/R2 FS402 UPPER FRAME			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 151	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>Modification Number / Title:</b> 5 / Correction of Deficiencies		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 13 of 24:</b> SLLP ECP-0557 CENTER FUSELAGE F2 FLOOR			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 157	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 14 of 24:</b> SLLP ECP-0628 BULKHEAD FS450, 472, 518 & 556			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 24	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>Modification Number / Title:</b> 5 / Correction of Deficiencies		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 15 of 24:</b> SLLP ECP-0630 FUEL FLOOR FS496-556	
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 32	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 16 of 24:</b> SLLP ECP-0698 FS496 BULKHEAD TRUNNION			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020		
Delivery Dates	Mar 2021		
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 15	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 17 of 24:</b> SLLP ECP-0754 FS518 BULKHEAD (LRIP 1-12)			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 188	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>Modification Number / Title:</b> 5 / Correction of Deficiencies		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 18 of 24:</b> SLLP ECP-0847 VT FWD SHEAR FITTING BUSH			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 174	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>Modification Number / Title:</b> 5 / Correction of Deficiencies		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 19 of 24:</b> SLLP ECP-1065 F1 FEED TANK UPPER COVERS LIMITED LIFE	
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	Mar 2022
Delivery Dates		Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 334	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 20 of 24:</b> SLLP ECP-1130 UPPER INLET DUCT LONGERON (Lot 1-12)			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 140	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 21 of 24:</b> SLLP ECP-1220 FS402 UPPER OUTBOARD FRAMES			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 400	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 22 of 24:</b> SLLP ECP-1246 LHS METALLIC FWD CHINE LONGERON			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 135	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 23 of 24:</b> SLLP ECP-1406 GUN BLAST SKIN			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime ( <i>in Months</i> ): 5		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Mar 2022
Delivery Dates			Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 138

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 24 of 24:</b> SLLP ECP-1441 FS402 UPPER FRAME			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Mar 2022
Delivery Dates			Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 460



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 6 / Block 4 Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	19.080	38.062	180.557	0.000	180.557
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	19.080	38.062	180.557	0.000	180.557
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>19.080</b>	<b>38.062</b>	<b>180.557</b>	<b>0.000</b>	<b>180.557</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

PB22 funding increase supports the first year of material procurement for Lot 15 capabilities in FY2022. Lot 15 modifications plan offset by production by 1-year due to the risk in development meeting timelines. This supports a 2024 install based on 2022 material procurement and offset by 6 months with production based on latest status. Additionally, funding in FY2022 supports procurement of manufacturing capacity tooling for Lot 16 capabilities to ensure adequate manufacturing capacity to support modifications, production, and sustainment concurrently; without funding manufacturing capacity cannot support modification requirements. Capacity tooling captured under support costs as "OTHER GOVT."

The F-35 Block 4 Program is established to retrofit advanced capabilities on the F-35As to increase the capability and lethality of the weapon system to meet current and future threats. Funding is required to upgrade Low Rate Initial Production (LRIP) Lots 5-16, totaling 483. Lot 5-10 aircraft (148 total) is planned to be retrofitted to a Lot 15 configuration. Lot 11-16 aircraft (335) is planned to be retrofitted to a Lot 17 configuration. Quantities of retrofits will increase based on changes to the production profile.

Block 4 incorporation will not follow the traditional Block upgrade approach; instead, modifications performed through a Continuous Capability Development and Delivery Concept that entails upgrades to both hardware and software on fielded aircraft on a yearly base. The current modification incorporation schedule is below and offset by production incorporation by 1-year for Lot 15 and Lot 16 capabilities based on a 2-year kit lead-time. This effort includes, but not limited to the below capabilities and associated modification install timelines:

**FY2021 (Lot 13) - Magazine Retainer Plate**

- Chaff and Flare Magazine Retainer Plate - provides the capability for programmable expendables, programmable magazine load-outs, programmable emergency jettison and quicker inventory

**FY2024 (Lot 15) - Technical Refresh 3 (TR3), Next Generation Distributed Aperture System (Next Gen DAS), Cooling Mod, and Advanced Communication, Navigation, Identification Processor**

- TR3 - integrates new integrated core processor, panoramic cockpit display, and aircraft memory system to meet Block 4 processing, memory, and throughput requirements
- Next Gen DAS - replaces current DAS due to sensor reliability while increasing performance to provide larger pixel focal plane array and higher operating temperatures
- Cooling Mod - increases cooling capacity to support electronic warfare growth and addition of Full Motion Video (FMV)

**FY2025 (Lot 16) - Full Motion Video, Embedded GPS and Inertial Navigation System (EGI), Modernized Electronic Warfare Controller (M-EWC), and Modernized Electronic Warfare Processor (M-EWP)**

- Full Motion Video - adds the capability to receive encrypted and unencrypted full motion video and still imagery from Operational Facilities and Remote Video Terminals
- EGI - hardware enabler for M-Code/Automatic Dependent Surveillance-Broadcast/Required Navigation Performance/area navigation capabilities
- EWC/EWP - increases 8-core processors (SDD) to 32-core, providing more than 3 times the processing performance for running advance algorithms and supporting the transition from 12 Receivers (SDD) to 20 Receivers

**FY2025 (Lot 17) - Advanced Multi Channel Transceiver Receiver (AMCTR), Band 2/3/4/5 Electronic Warfare (EW) Hardware (HW) and EW Group 2**

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 6 / Block 4 Modifications
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
<p>- AMCTR - provides MIDS Modernization Increment 1 (MMI) Concurrent Multi-Netting (CMN) and Concurrent Contention Receive (CCR) capabilities</p> <p>- Band 2/3/4/5 EW HW - provides Band 2&amp;5 RWR functionality by adding Band 2 Nose Landing Gear Door (NLGD) Aperture, Band 3/4 NLGD Aperture, Band 2/3/4 Array Electronic Module (AEM), Band 3/4/5 AEM, Band 5 Apertures, and Band 5 AEM</p> <p>- EW Group 2 - adds technology to address the Advancing Threats, to detect and counter the LPI Emitter while providing Band 5 RWR functionality; includes Wideband Receiver, Wideband Notch Filter, Band 2/5 Switch Matrix Module, Aircraft Interface Module (ACIF), M-Quad Upconverter (M-QUC), M-Quad Tuner (M-QTM), M-Digital Channelized Receiver (DCR), M-DCR and Techniques Receiver (DCRTG), M-Analog-to-Digital Converter (ADC), M-Radio Frequency Converter, High Voltage Power Supply (HVPS)</p> <p>Unit, organic depot, or contractor field teams will complete the modification installs to coincide with resources and aircraft availability.</p> <p>Significant funding increase in FY2022 to start procurement of Lot 15 hardware including TR-3 components.</p> <p>Milestone/Development Status</p> <p>FY2022 is the first year for TR3/Lot 15 procurements. Based on developmental status and production cut-in, this effort is 1-year behind production to reduce risk for kit procurement. Modification kit procurement in 2022 supports initial installs in 2024. Capacity Tooling in FY2022 supports Lot 16 capability efforts to ensure capacity is available to support modification ramp rate while simultaneously supporting production and sustainment. Lot 17 Capacity tooling is required in FY2023.</p>		

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications		<b>Modification Number / Title:</b> 6 / Block 4 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> F-35A		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0604840F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 3: COMMON: Block 4 B Kits</b>						
B Kits						
Recurring						
COMMON: Block 4 B Kits:EQUIPMENT Group B (Active)	- / -	- 17.210	- 19.730	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- 17.210	- 19.730	- / -	- / -	- / -
<i>Subtotal: COMMON: Block 4 B Kits</i>	- / -	- 17.210	- 19.730	- / -	- / -	- / -
<b>Modification Item 2 of 3: Lot 15</b>						
A Kits						
Recurring						
Lot 15:INSTALL KITS Group A (Active)	- / -	- / -	- / -	82 / 164.000 <sup>(1)</sup>	- / -	82 / 164.000
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 164.000	- / -	- / 164.000
<i>Subtotal: Lot 15</i>	- / -	- / -	- / -	- / 164.000	- / -	- / 164.000
<b>Modification Item 3 of 3: Mag Retainer Plate</b>						
A Kits						
Recurring						
Mag Retainer Plate:INSTALL KITS Group A (Active)	- / -	82 / 0.630	104 <sup>(2)</sup> / 0.800	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / 0.630	- / 0.800	- / -	- / -	- / -
<i>Subtotal: Mag Retainer Plate</i>	- / -	- / 0.630	- / 0.800	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- 17.840	- 10.530	- / 164.000	- / -	- / 164.000
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / -	- 12.927	- 15.165	- 14.354	- / -	- 14.354
OTHER GOVT	- / -	- 15.080	- 16.165	- 15.666	- / -	- 15.666
ICS-Labor	- / -	- 13.233	- 16.202	- 16.537	- / -	- 16.537
<i>Subtotal: Support</i>	- / -	- 11.240	- 27.532	- 16.557	- / -	- 16.557
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	-	19.080	38.062	180.557	0.000	180.557

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 3:</b> COMMON: Block 4 B Kits			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	<b>Modification Number / Title:</b> 6 / Block 4 Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 3:** Lot 15

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Fort Worth, TX
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Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 24
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Jan 2022
Delivery Dates			Jan 2024

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2		<b>P-1 Line Item Number / Title:</b> F03500 / F-35 Modifications	
		<b>Modification Number / Title:</b> 6 / Block 4 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 3 of 3:</b> Mag Retainer Plate			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Fort Worth	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Mar 2021	Mar 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 186	
<p><b>Footnotes:</b></p> <p>(1) FY22 material increase due to Lot 15 kit procurement. ; Rack 2 IBA modification item pushed to, and included in, Lot 15.</p> <p>(2) Mag retainer plate labor was removed as solution allowed for the unit level maintainer to complete.</p>			

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F15EWS / F-15 EPAW
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207171F	Other Related Program Elements: 0207146F
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**Line Item MDAP/MAIS Code:** 485

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	149.797	125.417	0.000	149.797	-	149.797	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	149.797	125.417	0.000	149.797	-	149.797	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>149.797</b>	<b>125.417</b>	<b>0.000</b>	<b>149.797</b>	<b>-</b>	<b>149.797</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	28.005	-	28.005	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The legacy F-15 Tactical Electronic Warfare System (TEWS) is functionally obsolete. It uses 1970's analog technology to combat 1980s-era radar-based ground and air threats. In addition, this aging system is becoming more difficult and expensive to sustain. As a result, the Air Force is replacing TEWS with the F-15 Eagle Passive/Active Warning and Survivability System (EPAWSS). F-15 EPAWSS is an advanced digital electronic warfare system capable of detecting, identifying, locating, denying, degrading, disrupting, and defeating modern and emerging threat systems in contested airspace with dense radio-frequency (RF) background environments. F-15 EPAWSS will provide indication, type, and position of ground-based RF threats as well as the indication, type, and bearing of airborne threats with the situational awareness needed to avoid, engage, or negate the threat. It will also prevent RF and infrared threat systems from detecting or acquiring accurate targeting information to complicate and/or negate an enemy threat targeting solution. Finally, EPAWSS will counter numerous threat systems at end-game via electronic countermeasures (jamming), chaff, and/or flares.

Funding will be used to procure and install both Low-Rate Initial Production and Full-Rate Production quantities of F-15E EPAWSS. These activities include efforts such as standing up the modification line/facility; monitoring and resolution of known/unknown Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues; System Engineering/Program Management; procurement and installation of EPAWSS hardware; sparing; certification/verification; development/update of technical orders/manuals; repair of Government Furnished Property (GFP); interim contractor support; and Support Equipment and Gap Analysis for Organic Depot Stand-up. Funding may also be used for other interdependent prerequisite efforts, such as installation of ADCP II, GPP3, MIDS-JTRS and/or vertical stabilator(s) as needed.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft /  
 BSA 2: Tactical Aircraft **P-1 Line Item Number / Title:**  
 F15EWS / F-15 EPAW

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207171F **Other Related Program Elements:** 0207146F

**Line Item MDAP/MAIS Code:** 485

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	8796 / EPAWSS F-15E (Capability Improvement)		B		- / 149.797	- / 125.417	- / 0.000	- / 149.797	- / 0.000	- / 149.797
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 149.797</b>	<b>- / 125.417</b>	<b>- / 0.000</b>	<b>- / 149.797</b>	<b>- / -</b>	<b>- / 149.797</b>

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

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

**Justification:**  
 This program, P-3A Mod 8796, EPAWSS F-15E, is a new start.

The F-15 is a versatile 4th-generation fighter aircraft central to Combatant Commanders' ability to fulfill the National Defense Strategy (Joint Lethality in Contested Environments) for numerous operational plans (OPLANS) and contingency plans (CONPLANS) in near-peer conflicts. The proliferation of 4th-generation enemy aircraft, sophisticated "double-digit" anti-aircraft missile systems, and other threat systems pose a significant threat to F-15 survivability. Therefore, it is necessary to invest in the F-15 platform to ensure it remains viable well into the 21st century. F-15 EPAWSS replaces the legacy, functionally-obsolete F-15 Tactical Electronic Warfare System. F-15 EPAWSS is a 21st century electronic warfare system which includes electronic detection and identification, geolocation, electronic countermeasures (jamming), and countermeasures dispensing (chaff/flares). The EPAWSS upgrade will significantly improve the F-15's ability to detect, identify, and locate Radio Frequency (RF) threats as well as deny, degrade, deceive, disrupt, and defeat RF and electro-optical / infrared threat systems within highly contested environments.



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F15EWS / F-15 EPAW	<b>Modification Number / Title:</b> 8796 / EPAWSS F-15E

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	149.797	125.417	0.000	149.797	0.000	149.797
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	149.797	125.417	0.000	149.797	0.000	149.797
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>149.797</b>	<b>125.417</b>	<b>0.000</b>	<b>149.797</b>	<b>0.000</b>	<b>149.797</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	28.005	-	28.005
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 8796, EPAWSS F-15E, is a new start. The legacy F-15 Tactical Electronic Warfare System (TEWS) is functionally obsolete. It uses 1970's analog technology to combat 1980s-era radar-based ground and air threats. In addition, this aging system is becoming more difficult and expensive to sustain. As a result, the Air Force is replacing TEWS with the F-15 Eagle Passive/Active Warning and Survivability System (EPAWSS). F-15 EPAWSS is an advanced digital electronic warfare system capable of detecting, identifying, locating, denying, degrading, disrupting, and defeating modern and emerging threat systems in contested airspace with dense radio-frequency (RF) background environments. F-15 EPAWSS will provide indication, type, and position of ground-based RF threats as well as the indication, type, and bearing of airborne threats with the situational awareness needed to avoid, engage, or negate the threat. It will also prevent RF and infrared threat systems from detecting or acquiring accurate targeting information to complicate and/or negate an enemy threat targeting solution. Finally, EPAWSS will counter numerous threat systems at end-game via electronic countermeasures (jamming), chaff, and/or flares.

Funding will be used to procure and install both Low-Rate Initial Production and Full-Rate Production quantities of F-15E EPAWSS. These activities include efforts such as standing up the modification line/facility; monitoring and resolution of known/unknown Diminishing Manufacturing Sources/Material Shortages (DMSMS) and/or obsolescence issues; System Engineering/Program Management; procurement and installation of EPAWSS hardware; sparing; certification/verification; development/update of technical orders/manuals; repair of Government Furnished Property (GFP); interim contractor support; and Support Equipment and Gap Analysis for Organic Depot Stand-up. Funding may also be used for other interdependent prerequisite efforts, such as installation of ADCP II, GPP3, MIDS-JTRS and/or vertical stabilator(s) as needed.

Funding Note: EPAWSS awarded Lot 1 Group A and Group B with FY 2019 funds.

**Milestone/Development Status**

The program has recovered from a Significant Nunn-McCurdy breach in June 2019 and has re-baselined. The EMD period-of-performance was extended through CY 2023 and the program had a successful Milestone C Decision Point in early FY 2021 (procurement decision), followed by a second decision point in May 2022 (deployment/installation decision). This tailored acquisition strategy enables earlier initiation of Low Rate Initial Production and takes procurement of the EPAWSS hardware (long-lead) off the program critical path.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F15EWS / F-15 EPAW			<b>Modification Number / Title:</b> 8796 / EPAWSS F-15E	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> F-15E		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207146F, 0207171F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207171F	1 / 147.216	5 / 46.040	2 / 170.368	- / 112.012	- / -	- / 112.012	
<b>Procurement</b>							
<b>Modification Item 1 of 1: F-15E EPAWSS</b>							
A Kits							
Recurring							
F-15E EPAWSS:INSTALL KITS Group A (Active)	6 / 5.578	- / -	- / -	18 / 16.735	- / -	18 / 16.735	
<i>Subtotal: Recurring</i>	- / 5.578	- / -	- / -	- / 16.735	- / -	- / 16.735	
B Kits							
Recurring							
F-15E EPAWSS:EQUIPMENT Group B (Active)	6 / 25.139	- / -	- / -	18 / 66.145	- / -	18 / 66.145	
<i>Subtotal: Recurring</i>	- / 25.139	- / -	- / -	- / 66.145	- / -	- / 66.145	
<i>Subtotal: F-15E EPAWSS</i>	- / 30.717	- / -	- / -	- / 82.880	- / -	- / 82.880	
<i>Subtotal: Procurement, All Modification Items</i>	- / 30.717	- / -	- / -	- / 82.880	- / -	- / 82.880	
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / 42.328	- / 47.917	- / -	- / 14.180	- / -	- / 14.180	
ICS-Labor	- / 45.687	- / -	- / -	- / 4.968	- / -	- / 4.968	
Type 1 Training	- / 0.337	- / 0.256	- / -	- / 0.137	- / -	- / 0.137	
PMA - Other Gov't Costs	- / 3.634	- / 3.780	- / -	- / 4.856	- / -	- / 4.856	
SUPPORT-EQUIP	- / 21.883	- / 68.764	- / -	- / 7.100	- / -	- / 7.100	
Data	- / 3.522	- / 0.500	- / -	- / 1.453	- / -	- / 1.453	
Change Orders	- / 1.689	- / 4.200	- / -	- / 8.899	- / -	- / 8.899	
<i>Subtotal: Support</i>	- / 119.080	- / 125.417	- / -	- / 41.593	- / -	- / 41.593	
<b>Installation</b>							
<b>Modification Item 1 of 1: F-15E EPAWSS</b>	- / -	- / -	- / -	6 / 25.324	- / -	6 / 25.324	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	6 / 25.324	- / -	6 / 25.324	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>149.797</b>	<b>125.417</b>	<b>0.000</b>	<b>149.797</b>	<b>0.000</b>	<b>149.797</b>	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F15EWS / F-15 EPAW	<b>Modification Number / Title:</b> 8796 / EPAWSS F-15E

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** F-15E EPAWSS

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: St. Louis
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 20

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

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	6 / 25.324	- / -	6 / 25.324
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	6 / 25.324	- / -	6 / 25.324

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F2232B / Increment 3.2b
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207138F	<b>Other Related Program Elements:</b> 0605213F
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**Line Item MDAP/MAIS Code:** 474

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	275.746	20.213	5.889	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	30.500	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	245.246	20.213	5.889	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	30.500	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>275.746</b>	<b>20.213</b>	<b>5.889</b>	<b>0.000</b>	<b>-</b>	<b>0.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

Increment 3.2B retrofits Block 30 and 35 aircraft with hardware and software to host Increment 3.2B capabilities including the Enhanced Stores Management System (ESMS) Common Split Bus, AIM-120D, AIM-9X, Electronic Protection enhancements, Intra-Flight Datalink (IFDL) improvements, and Geolocate 2.0. Increment 3.2B is the user's highest priority for F-22.

The F-22 Raptor's Modernization Development is conducted using a rapid acquisition construct leveraging commercial best practices such as Agile and Lean. This allows the F-22 Raptor program to develop, test, and field software/hardware from multiple programs (product lines) using a scheduled cadence for capabilities as they mature. The F-22 Raptor program's utilization of these commercial best practices during production activities will allow for concurrent installations of mature Group A and Group B hardware and software of multiple product lines, delivering war fighter capabilities to the field earlier than under historical acquisition practices.

Funding for this exhibit is contained in PE 0207138F.

The RDT&E funding for this effort is contained in PE 0605213F (FY04 - FY18); PE 0207163F (FY10 - FY13); PE 0207445F (FY07 - FY10); and PE 020001F (FY07).

Determined attempts to deny US air superiority from peer threats within the Indo-Pacific region have driven a Congressional Interest Item (CII), Emergency and Special Program (ESP) Code G3, to highlight investments and activities that will build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. The F-22 Raptor is a key component of the Pacific Deterrence Initiative (PDI) for increasing joint force lethality and maintaining a credible deterrent in theater.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	20.213	1.561	0.000	-	0.000	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	4.328	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft	<b>P-1 Line Item Number / Title:</b> F2232B / Increment 3.2b
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207138F	<b>Other Related Program Elements:</b> 0605213F
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**Line Item MDAP/MAIS Code:** 474

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	20.213	5.889	0.000	-	0.000	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
F2232B / Increment 3.2b

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0207138F **Other Related Program Elements:** 0605213F

**Line Item MDAP/MAIS Code:** 474

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	11100 / INCREMENT 3.2B (Capability Improvement)		B		- / 275.746	- / 20.213	- / 5.889	- / 0.000	- / 0.000	- / 0.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 275.746</b>	<b>- / 20.213</b>	<b>- / 5.889</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>

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

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

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2	<b>P-1 Line Item Number / Title:</b> F2232B / Increment 3.2b	<b>Modification Number / Title:</b> 11100 / INCREMENT 3.2B

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	275.746	20.213	5.889	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	30.500	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	245.246	20.213	5.889	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	30.500	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>275.746</b>	<b>20.213</b>	<b>5.889</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

Increment 3.2B retrofits Block 30 and 35 aircraft with hardware and software to host Increment 3.2B Enhanced Stores Management System (ESMS) Common Split Bus, AIM-120D, AIM-9X, Electronic Protection enhancements, IFDL improvements, Geolocate 2.0 capability and installs display upgrades, more capable memory and improved computer processors. Increment 3.2B will retrofit 143 aircraft in the fleet. Along with Update 6, Increment 3.2B is the user's highest priority for F-22. Retrofit installations started at Langley AFB in FY19 and now includes retrofit installations at Hickam AFB and Elmendorf AFB in FY20. FY20 includes the initial retrofit contractor field team setup for Elmendorf AB and Hickam AB. Increment 3.2B installation costs vary by specific aircraft block and location.

**Milestone/Development Status**

LRIP installs began in May 2019. The last milestone of Required Assets Available was reached on 27 Aug 2019 (prior to the 30 Sep 2019 threshold). Installs are scheduled to complete in early FY22.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	20.213	1.561	0.000	-	0.000
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	4.328	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>20.213</b>	<b>5.889</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2			<b>P-1 Line Item Number / Title:</b> F2232B / Increment 3.2b			<b>Modification Number / Title:</b> 11100 / INCREMENT 3.2B	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> F-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0605213F, 0207138F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207138F	- / 977.829	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	
<b>Procurement</b>							
<b>Modification Item 1 of 1:</b> Inc 3.2B Kits							
A Kits							
Recurring							
Inc 3.2B Kits:INSTALL KITS Group A (Active)	- / 0.000	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
B Kits							
Recurring							
Inc 3.2B Kits:EQUIPMENT Group B (Active)	123 / 128.024	- / -	- / -	0 / 0.000	- / -	0 / 0.000	
Inc 3.2B Kits:EQUIPMENT Group B (Guard)	20 / 23.200	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 151.224</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	
<b>Subtotal: Inc 3.2B Kits</b>	<b>- / 151.224</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 151.224</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING							
Data	- / 6.180	- / -	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 17.098	- / -	- / -	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / 14.157	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Support</b>	<b>- / 115.860</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Installation</b>							
<b>Modification Item 1 of 1:</b> Inc 3.2B Kits							
	35 / 8.662	81 / 20.213	27 / 5.889	- / -	- / -	- / -	
<b>Subtotal: Installation</b>	<b>35 / 8.662</b>	<b>81 / 20.213</b>	<b>27 / 5.889</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>275.746</b>	<b>20.213</b>	<b>5.889</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 2					<b>P-1 Line Item Number / Title:</b> F2232B / Increment 3.2b					<b>Modification Number / Title:</b> 11100 / INCREMENT 3.2B				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>							
<b>Modification Item 1 of 1:</b> Inc 3.2B Kits														
<b>Manufacturer Information</b>														
Manufacturer Name: Lockheed Martin							Manufacturer Location: Fort Worth, TX							
Administrative Leadtime (in Months): 1							Production Leadtime (in Months): 12							
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
Contract Dates														
Delivery Dates														
<b>Installation Information</b>														
<b>Method of Implementation:</b> Contract Field Team														
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>		
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		
Prior Years		35 / 8.662		81 / 20.213		27 / 5.889		- / -		- / -		- / -		
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		
Total		35 / 8.662		81 / 20.213		27 / 5.889		- / -		- / -		- / -		
<b>Installation Schedule</b>														
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	
In	11	12	16	18	17	17	23	20	9	-	-	-	-	
Out	9	9	15	9	17	17	23	20	15	9	-	-	-	

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft

**P-1 Line Item Number / Title:**  
KC046A / KC-46A MDAP

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0401221F **Other Related Program Elements:** 0401221F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.038	5.213	4.085	1.984	-	1.984	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.038	5.213	4.085	1.984	-	1.984	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.038</b>	<b>5.213</b>	<b>4.085</b>	<b>1.984</b>	-	<b>1.984</b>	-	-	-	-	-	-

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

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

**Description:**

The KC-46 will provide the capability to fuel joint and coalition receivers via a boom or drogue system on every mission and will also augment the airlift fleet with cargo, passenger, and aeromedical evacuation capabilities. The KC-46 will operate in day/night and adverse weather conditions to enable deployment, employment, sustainment, and redeployment of U.S. joint, allied, and coalition forces. The KC-46 will have communication, navigation, and surveillance equipment for world-wide operations; the capability to perform missions in chemical and biological environments; the ability to operate in up to medium threat environments with self-defense/protection (both active and passive) capabilities; and the necessary battle space awareness to mitigate survivability threats. The dynamics and mission urgency of the post-production environment requires the program to maintain flexible and responsive posture to support a broad range of mission support needs. The KC-46 will continue to identify, design, develop, integrate, verify, certify, produce, install, field, and sustain a comprehensive range of non-recurring and recurring post-production, air vehicle enhancements and field support needs. These needs may originate from programmed Mobility Air Force (MAF) requirements, Combatant Commander Joint or Urgent Operational Needs (JUON/UON), non-programmed Federal Aviation Administration (FAA) directives, or correction of deficiency reports.

The KC-46 will continue to develop, field, and sustain warfighter capabilities to meet evolving threats and mission support requirements through Block or discrete modification or modernization programs depending on mission urgency, available funding, and programmatic and technical risks. Post-production requirements can include, but will not be limited to, avionics and structural systems/architecture and subsystem updates, general mission equipment updates and procurement, general sustainment support, studies and analyses, and correction of deficiency reports.

Other modifications to the KC-46 through the FYDP include, but are not limited to, R&M, Safety Mods, Avionics and Flight Systems enhancements (described as the Pegasus Advanced Communications Suite (PACS) modification), efforts executed under the auspices of Pegasus Combat Capability (PC2) (M-Code Global Positioning System (GPS), Multifunctional Information Distribution Systems (MIDS) Enhancements, Advanced Communication Systems, Survivability and Mission Performance), requirements identified and supported by Major Command (MAJCOM)-approved 1067s, Higher Headquarters (HHQ) Enterprise Capability Collaboration Teams (i.e., High Value Airborne Asset [HVAA], Air Superiority 2030, and Multi-Domain Command and Control [MDC2]), Airworthiness Directives (ADs)/Service Bulletins (SBs), and Low Cost Modifications (LCMs).

Funding for this exhibit contained in PE 0401221F.

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

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

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 2: Tactical Aircraft		<b>P-1 Line Item Number / Title:</b> KC046A / KC-46A MDAP
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0401221F	<b>Other Related Program Elements:</b> 0401221F
<b>Line Item MDAP/MAIS Code:</b> N/A		

**Justification:**  
FY 2022 funding will support LCMs. FY 2022 funding also supports the integration of ADs/SBs and other reported issues to correct identified deficiencies, provide product improvements, and maintain FAA certification compliance for the aircraft.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft

**P-1 Line Item Number / Title:**  
C00500 / C-5

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401119F, 0401897F **Other Related Program Elements:** 0401119F, 0401897F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	115.532	56.326	50.279	25.431	-	25.431	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	115.532	56.326	50.279	25.431	-	25.431	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>115.532</b>	<b>56.326</b>	<b>50.279</b>	<b>25.431</b>	-	<b>25.431</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	2.053	0.409	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to the C-5M aircraft. The C-5M carries outsized and heavy cargo (tanks, helicopters, etc.) between main operating bases. Additionally, the aircraft is capable of carrying 73 troops and 36 standard 463-L pallets. Modifications increase operational capability while improving flight safety, reliability, and maintainability.

There are 52 C-5M aircraft in the Air Force fleet. The fleet was delivered to the Air Force between 1969 and 1989. Initial service life for the aircraft was 30,000 flight hours. Service life is extended out to 2040 as a result of the reliability enhancement and re-engining program (RERP) modification.

Available funds will be used for C-5M Mission Systems Equipment- Lavatory, Core Mission Computer and Weather Radar (CMC/WxRadar), C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM), C-5M Replace Multi-Functional Controls and Display (RMCD) and Low Cost Modifications (Capability Improvement), along with Program Management and Administration (PMA), studies and analysis, risk reduction efforts, Advisory and Assistance Services, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs. Funding may also be used to address Diminishing Manufacturing Sources (DMS) through studies and analysis, bridge buys, life-of-type buys, etc.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L.110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

These modifications support performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

Funding for this exhibit is contained in PE 0401119F and under mod line 8969, C-5 Training Systems (Training Mods), is contained in PE 0401897F

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	46.262	39.524	22.163	-	22.163	-	-	-	-
AFR	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	<b>P-1 Line Item Number / Title:</b> C00500 / C-5
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401119F, 0401897F	<b>Other Related Program Elements:</b> 0401119F, 0401897F
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**Line Item MDAP/MAIS Code:** N/A

	Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
	Total Obligation Authority	10.064	10.755	3.268	-	3.268	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>56.326</b>	<b>50.279</b>	<b>25.431</b>	<b>-</b>	<b>25.431</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft

**P-1 Line Item Number / Title:**  
C00500 / C-5

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401119F, 0401897F **Other Related Program Elements:** 0401119F, 0401897F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	8965 / C-5 Fleet Blk Upgrade 01 (Other)				- / 13.093	- / -	- / -	- / -	- / -	- / -
P-40a***	8966 / C-5 Mission Systems Equipment- Lavatory (Other)				- / 20.404	- / 8.742	- / 12.866	- / 0.638	- / -	- / 0.638
P-40a***	8969 / C-5 Training Systems (Training Mods) (Capability Improvement)				- / -	- / -	- / -	- / 7.848	- / -	- / 7.848
P-3a	8967 / Mission Computer and Weather Radar (Other)		B		- / 64.602	- / 16.238	- / 10.473	- / 11.844	- / 0.000	- / 11.844
P-3a	8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) (Capability Improvement)		B		- / 17.433	- / 31.346	- / 26.940	- / 5.101	- / 0.000	- / 5.101
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 115.532</b>	<b>- / 56.326</b>	<b>- / 50.279</b>	<b>- / 25.431</b>	<b>- / -</b>	<b>- / 25.431</b>

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

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

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

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8967 / Mission Computer and Weather Radar

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	64.602	16.238	10.473	11.844	0.000	11.844
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	64.602	16.238	10.473	11.844	0.000	11.844
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>64.602</b>	<b>16.238</b>	<b>10.473</b>	<b>11.844</b>	<b>0.000</b>	<b>11.844</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	3.606	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

The C-5M core mission computer (CMC) and weather radar (WxRadar) requirement is for the modification of 50 C-5M aircraft. The CMC/WxRadar replacement program is a comprehensive permanent sustainment modification, as described in validated requirements per AMC AF Form 1067s 11-152 and 11-153, to mitigate the obsolescence of the current CMC and WxRadar. This effort centers around modifying the current CMC, to obtain sufficient throughput/capability to support integration of the WxRadar with margin for growth to accommodate future requirements. This includes requirements to meet calendar year 2020 FAA Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) requirements. The program will modify a total of 52 aircraft; 2 during Engineering and Manufacturing Development and 50 during Production.

The CMC/WxRadar modification is necessary to keep the C-5M worldwide deployable. This effort replaces the APS-133 WxRadar, resolving severe diminishing manufacturing source (DMS) issues, using the Rockwell Collins WXR-2100 commercial off-the-shelf WxRadar, which is common to other aircraft platforms, and provides the same capability as the APS-133. The effort also replaces the current core processing module (CPM) cards in the CMC with new Honeywell CPM II cards, providing additional processing speed and throughput capacity.

The CMC/WxRadar program is the baseline for all future modifications to the C-5M. The modification helps to maintain aircraft availability as the current APS-133 WxRadar and current CPM cards are both facing severe diminishing manufacturing source (DMS) issues. Available funds will be used for Program Management and Administration (PMA), studies and analysis, risk reduction efforts, Advisory and Assistance Services, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs. Funding may also be used to address Diminishing Manufacturing Sources (DMS) through studies and analysis, bridge buys, life-of-type buys, etc.

There are a total of 8 trainers to be updated; 6 weapon systems trainers (WST) and 2 aircrew maintenance system trainers (AMST).

The Production strategy awarded a competitive contract for the kitting of Group A components (wiring, harnesses, brackets, etc.) and awarded sole-source contracts for the Group B components such as Core Mission Computer (CMC) Versatile Integrated Avionics (VIAs) and Avionics Interface Units (AIUs), Radar components, etc. The current modification install strategy is to have the modification accomplished at a contractor facility.

Milestone/Development Status

Development complete



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8967 / Mission Computer and Weather Radar

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	11.279	9.637	8.992	-	8.992
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	4.959	0.836	2.852	-	2.852
<b>Total:</b> Secondary Distribution	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>16.238</b>	<b>10.473</b>	<b>11.844</b>	<b>0.000</b>	<b>11.844</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3			<b>P-1 Line Item Number / Title:</b> C00500 / C-5		<b>Modification Number / Title:</b> 8967 / Mission Computer and Weather Radar	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-5M		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0401119F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0401119F	2 / 97.080	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1: CMC/WxRadar</b>						
A Kits						
Recurring						
CMC/WxRadar:INSTALL KITS Group A (Active)	21 / 2.585	11 / 1.282	2 / 0.319	- / -	- / -	- / -
CMC/WxRadar:INSTALL KITS Group A (Reserve)	8 / 0.959	7 / 0.816	1 / 0.159	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 3.544</b>	<b>- / 2.098</b>	<b>- / 0.478</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
B Kits						
Recurring						
CMC/WxRadar:EQUIPMENT Group B (Active)	21 / 13.165	11 / 6.511	2 / 1.354	- / -	- / -	- / -
CMC/WxRadar:EQUIPMENT Group B (Reserve)	8 / 5.006	7 / 4.143	1 / 0.677	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 18.171</b>	<b>- / 10.654</b>	<b>- / 2.031</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: CMC/WxRadar</b>	<b>- / 21.715</b>	<b>- / 12.752</b>	<b>- / 2.509</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 21.715</b>	<b>- / 12.752</b>	<b>- / 2.509</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 0.434	- / -	- / -	- / -	- / -	- / -
Mod of Spares	- / 14.629	- / -	- / -	- / -	- / -	- / -
SIM/TRAINER	2 / 9.396	3 / 2.833	2 / 6.639	1 / 4.198	- / -	1 / 4.198
SUPPORT-EQUIP	- / 0.834	- / -	- / -	- / -	- / -	- / -
PMA - Other Gov't Costs	- / 2.196	- / 10.010	- / 0.034	- / 10.141	- / -	- / 10.141
PMA - Contractor Services	- / 14.371	- / -	- / -	- / 10.157	- / -	- / 10.157
A&AS	- / 5.496	- / -	- / -	- / -	- / -	- / -
OTHER GOVT	- / -	- / -	- / 10.044	- / 10.218	- / -	- / 10.218
ICS-Material	- / 0.093	- / -	- / -	- / -	- / -	- / -
ICS-Labor	- / 0.373	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Support</b>	<b>2 / 37.822</b>	<b>3 / 2.843</b>	<b>2 / 6.717</b>	<b>1 / 4.714</b>	<b>- / -</b>	<b>1 / 4.714</b>
<b>Installation</b>						
<b>Modification Item 1 of 1: CMC/WxRadar</b>	0 / 5.065	0 / 0.643	4 / 1.247	13 / 7.130	- / -	13 / 7.130
<b>Subtotal: Installation</b>	<b>- / 5.065</b>	<b>- / 0.643</b>	<b>4 / 1.247</b>	<b>13 / 7.130</b>	<b>- / -</b>	<b>13 / 7.130</b>
<b>Total</b>						

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8967 / Mission Computer and Weather Radar

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> C-5M	<b>Modification Type:</b> Other	<b>Related RDT&amp;E PEs:</b> 0401119F
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<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
<b>Total Cost (Procurement + Support + Installation)</b>	<b>64.602</b>	<b>16.238</b>	<b>10.473</b>	<b>11.844</b>	<b>0.000</b>	<b>11.844</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8967 / Mission Computer and Weather Radar

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** CMC/WxRadar

**Manufacturer Information**

Manufacturer Name: Gauss management Research and Engineering, Inc	Manufacturer Location: Ogden, UT
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 15

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2020	Apr 2021	
Delivery Dates	Jun 2021	Jul 2022	

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 5.065	0 / 0.643	4 / 1.247	13 / 7.130	- / -	13 / 7.130
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 5.065	0 / 0.643	4 / 1.247	13 / 7.130	- / -	13 / 7.130

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	17.433	31.346	26.940	5.101	0.000	5.101
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	17.433	31.346	26.940	5.101	0.000	5.101
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>17.433</b>	<b>31.346</b>	<b>26.940</b>	<b>5.101</b>	<b>0.000</b>	<b>5.101</b>

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

Initial Spares (\$ in Millions)	4.336	2.053	0.409	0.000	0.000	0.000
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

**Description:**

The C-5M communication, navigation, surveillance/air traffic management (CNS/ATM) program is a comprehensive effort to ensure appropriate system design architectures are developed and installed on the C-5M to allow aircraft operation in accordance with civil airspace access mandates for the US national airspace system (NAS) and international civil airspace. Also, the program will add equipment to meet outstanding National Security Agency (NSA) mandates for encryption of voice communications. The CNS/ATM program ensures system standardization and interoperability with other DoD systems to the maximum extent possible and directly supports airworthiness certification of the C-5M. CNS/ATM requirements include, but are not limited to, capabilities such as automatic dependent surveillance-broadcast out (ADS-B Out), identification friend or foe (IFF) mode 5, satellite communication equipment replacement, and beyond line-of-sight voice radio replacement. It is anticipated equipment will be predominately commercial off-the-shelf or non-developmental items. The current ARC-210 radio for very high frequency (VHF) voice communications is facing diminishing manufacturing source (DMS) issues and will no longer be capable of providing secure voice communications due to the development of new crypto algorithms. The addition of next generation ARC-210 radios and associated cryptologic equipment will enable the C-5M to meet NSA mandates for secure communications and allow aircrews to continue to communicate securely over VHF, ultra high frequency (UHF), high frequency (HF), or MILSATCOM. The current generation of satellites support services used on the C-5M to provide oceanic controller/pilot data link communications (CPDLCs) to air traffic control and aircraft communications addressing and reporting system (ACARS) beyond-line-of-sight command and control messages will no longer be functional after 2016. The next generation of satellites will accommodate legacy C-5M SATCOM equipment for an interim period of time to allow for integration of upgraded SATCOM equipment compatible with this satellite constellation. Without this modification, the C-5M will not be able to fly oceanic tracks and will not be able to meet aircraft separation distance requirements for civil airspace access. ADS-B Out is a next generation surveillance technology that transitions key aspects of air traffic control from terrestrial based technologies to satellite enabled technologies to provide controllers a more accurate picture of aircraft positioning. ADS-B Out will allow aircraft to provide continuous broadcast of aircraft position to both controllers and other aircraft equipped with ADS-B In capable avionics. International and US NAS mandates for ADS-B Out for civil airspace access call for equipage by calendar year 2020. Fifty-two (52) C-5M aircraft will receive this modification. The following requirement documents for C-5M CNS/ATM upgrade components were approved by HAF/A5 on 7 Nov 14: AMC AF Form 1067s 14-067, 12-067, 10-034, and 09-015. ADS-B Out software and hardware upgrade modifications met the FY20 mandates. There are a total of 8 trainers, 6 are weapon systems trainers (WST) and 2 are aircrew maintenance system trainers (AMST). The current modification install strategy is to have the modification accomplished at a contractor facility. Available funds will be used for Program Management and Administration (PMA), studies and analysis, risk reduction efforts, Advisory and Assistance Services, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs. Funding may also be used to address Diminishing Manufacturing Sources (DMS) through studies and analysis, bridge buys, life-of-type buys, etc.

Milestone/Development Status

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	27.931	20.407	4.832	-	4.832
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	3.415	6.533	0.269	-	0.269
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>31.346</b>	<b>26.940</b>	<b>5.101</b>	<b>0.000</b>	<b>5.101</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3			<b>P-1 Line Item Number / Title:</b> C00500 / C-5		<b>Modification Number / Title:</b> 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-5M		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0401119F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0401119F	2 / 113.040	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1: CNS/ATM</b>						
A Kits						
Recurring						
CNS/ATM:INSTALL KITS Group A (Active)	14 / 0.716	14 / 0.722	6 / 0.350	- / -	- / -	- / -
CNS/ATM:INSTALL KITS Group A (Reserve)	7 / 0.358	5 / 0.258	4 / 0.233	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 1.074	- / 0.980	- / 0.583	- / -	- / -	- / -
B Kits						
Recurring						
CNS/ATM:EQUIPMENT Group B (Active)	14 / 7.955	14 / 8.838	6 / 3.592	- / -	- / -	- / -
CNS/ATM:EQUIPMENT Group B (Reserve)	7 / 3.978	5 / 3.157	4 / 2.395	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 11.933	- / 11.995	- / 5.987	- / -	- / -	- / -
<i>Subtotal: CNS/ATM</i>	- / 13.007	- / 12.975	- / 6.570	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 13.007	- / 12.975	- / 6.570	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
SUPPORT-EQUIP	- / -	- / 0.034	- / 0.129	- / -	- / -	- / -
ICS-Labor	- / 0.139	- / 0.242	- / 0.444	- / 0.770	- / -	- / 0.770
ICS-Material	- / 0.035	- / 0.061	- / 0.111	- / 0.193	- / -	- / 0.193
SIM/TRAINER	- / -	6 / 5.524	2 / 7.359	- / -	- / -	- / -
Change Orders	- / 1.417	- / 1.583	- / 0.265	- / -	- / -	- / -
A&AS	- / -	- / -	- / 14.917	- / -	- / -	- / -
OTHER GOVT	- / -	- / 11.970	- / 11.065	- / 0.226	- / -	- / 0.226
PMA - Other Gov't Costs	- / 12.835	- / 0.847	- / 0.755	- / 0.588	- / -	- / 0.588
PMA - Contractor Services	- / -	- / 0.110	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 14.426	6 / 18.371	2 / 15.045	- / 1.777	- / -	- / 1.777
<b>Installation</b>						
<b>Modification Item 1 of 1: CNS/ATM</b>	- / -	- / -	4 / 5.325	13 / 3.324	- / -	13 / 3.324
<i>Subtotal: Installation</i>	- / -	0 / 0.000	4 / 5.325	13 / 3.324	- / -	13 / 3.324

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> C-5M	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0401119F
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Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	17.433	31.346	26.940	5.101	0.000	5.101



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C00500 / C-5	<b>Modification Number / Title:</b> 8968 / C-5M Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** CNS/ATM

**Manufacturer Information**

Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 11	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Apr 2020	Apr 2021	
Delivery Dates	Mar 2021	Mar 2022	

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	4 / 5.325	13 / 3.324	- / -	13 / 3.324
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	4 / 5.325	13 / 3.324	- / -	13 / 3.324

**Installation Schedule**

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

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft

**P-1 Line Item Number / Title:**  
C01700 / C-17A

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0401130F **Other Related Program Elements:** 0401130F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	380.519	55.916	44.798	59.570	-	59.570	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	380.519	55.916	44.798	59.570	-	59.570	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>380.519</b>	<b>55.916</b>	<b>44.798</b>	<b>59.570</b>	-	<b>59.570</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds modifications to the C-17 aircraft and Training Systems. The United States Air Force (USAF) C-17 inventory is 222 aircraft. The four engine C-17 is the only aircraft capable of routine delivery of outsize cargo (tanks, helicopters, etc.) to short, austere airfields. The aircraft can carry up to 102 troops, 36 litter patients, or 18 standard 463-L pallets.

This funding includes Rapid Global Mobility platform-related rapid prototyping and fielding activities executed under the authority of National Defense Authorization Act 2016, Section 804, as amended. Such activities include, but are not limited to, roll-on/roll-off, carry-on/carry-off, pod-based, aircraft-integrated support equipment, and other technical solutions supporting the full spectrum of the platform's Rapid Global Mobility missions.

Funding may also be used to address Diminishing Manufacturing Sources (DMS) issues, obsolescence resolution for multi-functional displays, fuel efficiency & drag reduction improvements, aircraft data bus maintenance initiatives, and cockpit situational awareness.

In accordance with Section 1815 of the FY08 National Defense Authorization Act (P.L.110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

Funding for this exhibit is contained in PE 0401130F and 0401897F.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	47.544	36.420	45.572	-	45.572	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.980	5.948	9.555	-	9.555	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.392	2.430	4.443	-	4.443	-	-	-

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force							<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft					<b>P-1 Line Item Number / Title:</b> C01700 / C-17A				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B			<b>Program Elements for Code B Items:</b> 0401130F			<b>Other Related Program Elements:</b> 0401130F			
<b>Line Item MDAP/MAIS Code:</b> N/A									

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
<b>Total:</b>	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	55.916	44.798	59.570	-	59.570	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft

**P-1 Line Item Number / Title:**  
C01700 / C-17A

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0401130F **Other Related Program Elements:** 0401130F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	_2000 / Pylon Stub FFLZ, FF, Translating Fairing (Safety)				- / 94.544	- / -	- / 0.948	- / 0.627	- / -	- / 0.627
P-40a***	_2590 / ELT Frequency Change (Capability Improvement)				- / 5.182	- / -	- / -	- / -	- / -	- / -
P-40a***	_2633 / MFOQA (Capability Improvement)				- / 14.070	- / -	- / -	- / -	- / -	- / -
P-40a***	1508 / IFF GATM (Capability Improvement)				- / 124.543	- / -	- / 0.050	- / -	- / -	- / -
P-40a***	2901 / Automatic Dependent Surveillance - Broadcast Out (ADS-B Out) (Capability Improvement)				- / 83.887	- / -	- / -	- / -	- / -	- / -
P-40a***	6403 / Filter Fire Mitigation (Capability Improvement)				- / -	- / 1.870	- / -	- / 1.780	- / -	- / 1.780
P-40a***	9740 / Fixed Installation Satellite Antenna (FISA) (Capability Improvement)				- / 7.079	- / -	- / 0.000	- / -	- / -	- / -
P-40a***	9742 / C-17 Simulator Lateral Motion Maneuver Enhancement (Other)				- / 1.438	- / -	- / -	- / -	- / -	- / -
P-40a***	9744 / C-17 Visual System Field of View (Other)				- / 1.008	- / -	- / -	- / -	- / -	- / -
P-40a***	9747 / C-17 Training System (Other Mods) (Other)				- / 3.739	- / 0.860	- / 7.728	- / 9.585	- / -	- / 9.585
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 3.246	- / 3.617	- / 1.106	- / 0.100	- / -	- / 0.100
P-3a	3080 / Replacement Heads Up Display (RHUD) (Capability Improvement)			B	- / 41.270	- / 46.630	- / 33.599	- / 36.307	- / 0.000	- / 36.307
P-3a	9741 / Beyond Line of Sight (BLOS) (Capability Improvement)			B	- / 0.513	- / 2.939	- / 1.367	- / 11.171	- / 0.000	- / 11.171
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 380.519</b>	<b>- / 55.916</b>	<b>- / 44.798</b>	<b>- / 59.570</b>	<b>- / -</b>	<b>- / 59.570</b>

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

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

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

**Justification:**  
Major C-17 modifications in FY22 include: Replacement Heads Up Display (RHUD), Beyond Line of Sight (BLOS), and Training Systems.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C01700 / C-17A	<b>Modification Number / Title:</b> 3080 / Replacement Heads Up Display (RHUD)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	41.270	46.630	33.599	36.307	0.000	36.307
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	41.270	46.630	33.599	36.307	0.000	36.307
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>41.270</b>	<b>46.630</b>	<b>33.599</b>	<b>36.307</b>	<b>0.000</b>	<b>36.307</b>

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

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

**Description:**

This modification effort is an ACAT III program for modernization of the C-17 on the Air Force Acquisition Master List (AML). This effort is for development, integration and installation of a Replacement Heads-Up Display (RHUD) onto the C-17 aircraft. Analysis indicates the current HUD, which is required to fly the C-17, is becoming unsupportable due to obsolescence. This effort will retrofit the C-17 fleet with an RHUD that is supportable and provides improved reliability, maintainability, and supportability, while providing growth to support future planned capability improvements. The total of 222 units at a cost of \$362.4M will be sustainable for the planned life of the C-17 fleet. The RHUD retrofit will start and complete installs from FY21 through FY28 under the current Globemaster III Integrated Sustainment Program (GISP) and follow on contract G3.

Projected allocations by component are subject to total force mission priorities and aircraft availability.

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

**Milestone/Development Status**

The first RHUD was tested with RDT&E funding in FY18. The first production kitproof kits were purchased in FY19 for FY20 installation.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	38.258	26.169	25.231	-	25.231
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	5.980	5.000	7.398	-	7.398
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	2.392	2.430	3.678	-	3.678
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>46.630</b>	<b>33.599</b>	<b>36.307</b>	<b>0.000</b>	<b>36.307</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3			<b>P-1 Line Item Number / Title:</b> C01700 / C-17A			<b>Modification Number / Title:</b> 3080 / Replacement Heads Up Display (RHUD)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-17			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401130F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0401130F	- / 117.210	- / -	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> RHUD							
A Kits							
Recurring							
RHUD:INSTALL KITS Group A (Active)	18 / 20.501	19 / 21.256	19 / 20.319	14 / 10.521	- / -	14 / 10.521	
RHUD:INSTALL KITS Group A (Guard)	5 / 6.008	5 / 5.980	5 / 5.000	5 / 5.000	- / -	5 / 5.000	
RHUD:INSTALL KITS Group A (Reserve)	2 / 2.000	2 / 2.392	2 / 2.430	2 / 2.430	- / -	2 / 2.430	
<i>Subtotal: Recurring</i>	- / 28.509	- / 29.628	- / 27.749	- / 17.951	- / -	- / 17.951	
<i>Subtotal: RHUD</i>	- / 28.509	- / 29.628	- / 27.749	- / 17.951	- / -	- / 17.951	
<i>Subtotal: Procurement, All Modification Items</i>	- / 28.509	- / 29.628	- / 27.749	- / 17.951	- / -	- / 17.951	
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / 1.000	- / 2.000	- / 1.000	- / 0.045	- / -	- / 0.045	
SUPPORT-EQUIP	- / -	- / -	- / -	- / 2.400	- / -	- / 2.400	
SIM/TRAINER	0 / 4.614	- / -	- / -	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / 17.147	- / 14.002	- / 13.855	- / 15.450	- / -	- / 15.450	
<i>Subtotal: Support</i>	0 / 12.761	- / 16.002	- / 4.855	- / 17.895	- / -	- / 17.895	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> RHUD	- / -	2 / 1.000	13 / 0.995	36 / 10.461	- / -	36 / 10.461	
<i>Subtotal: Installation</i>	- / -	2 / 1.000	13 / 0.995	36 / 10.461	- / -	36 / 10.461	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>41.270</b>	<b>46.630</b>	<b>33.599</b>	<b>36.307</b>	<b>0.000</b>	<b>36.307</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C01700 / C-17A	<b>Modification Number / Title:</b> 3080 / Replacement Heads Up Display (RHUD)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** RHUD

**Manufacturer Information**

Manufacturer Name: The Boeing Company	Manufacturer Location: Long Beach, Ca
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 17

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Sep 2020	Sep 2021	May 2022
Delivery Dates	Feb 2022	Feb 2023	Oct 2023

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	1 / 0.500	7 / 0.520	6 / 1.462	- / -	6 / 1.462
FY 2020	- / -	- / -	- / -	14 / 4.007	- / -	14 / 4.007
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.500	7 / 0.520	20 / 5.469	- / -	20 / 5.469

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	-	1	-	-	1	2	2	2	5	5	5	5
Out	0	-	-	1	-	-	1	2	2	2	5	5	5

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	1 / 0.500	6 / 0.475	4 / 1.248	- / -	4 / 1.248
FY 2020	- / -	- / -	- / -	12 / 3.744	- / -	12 / 3.744
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.500	6 / 0.475	16 / 4.992	- / -	16 / 4.992



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C01700 / C-17A	<b>Modification Number / Title:</b> 3080 / Replacement Heads Up Display (RHUD)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** RHUD

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C01700 / C-17A	<b>Modification Number / Title:</b> 9741 / Beyond Line of Sight (BLOS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.513	2.939	1.367	11.171	0.000	11.171
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.513	2.939	1.367	11.171	0.000	11.171
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.513</b>	<b>2.939</b>	<b>1.367</b>	<b>11.171</b>	<b>0.000</b>	<b>11.171</b>

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

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

**Description:**

Beyond Line-Of-Sight (BLOS) modernization modification is a development, integration, and retrofit program for C-17 communications. BLOS modifies and modernizes hardware and software for voice and data communications on the C-17.

The program will modify both integrated aircraft avionics as well as back-end mission communications and will utilize both military and commercial satellite systems to extend communication ranges. The current ACAT III program includes (1) replacement of the hardware/software used for commercial L-Band SATCOM communications utilized for Federal Aviation Administration (FAA) safety services (Controller Pilot Data Link Communications (CPDLC), Future Air Navigation System (FANS-1/A), Automatic Dependent Surveillance - Contract (ADS-C)), (2) modernization of ARC-210 radio to meet NSA cryptologic mandates and integrate new waveforms (Mobile User Objective System (MUOS), Second generation Anti-jam Tactical UHF Radio for NATO (SATURN), Integrated Waveform (IW)), and (3) modernization of the C-17 HF encryption device used for secure HF communications (KYV-5 replaced with KYV-5M).

The BLOS program includes support for program management, system engineering, on-going flight test, software labs, and engineering/acquisition studies not related to requirements generation.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Project allocations by component are subject to total force mission priorities and aircraft availability.

**Milestone/Development Status**

Program Critical Design Review (CDR) complete Mar 2021. Plan to procure long-lead material (ARC-210 radios) in FY21 for FY23 low rate production (installs).

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	2.939	1.367	8.876	-	8.876
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	1.530	-	1.530
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	0.765	-	0.765
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force				<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3		<b>P-1 Line Item Number / Title:</b> C01700 / C-17A		<b>Modification Number / Title:</b> 9741 / Beyond Line of Sight (BLOS)		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	2.939	1.367	11.171	0.000	11.171

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3			<b>P-1 Line Item Number / Title:</b> C01700 / C-17A		<b>Modification Number / Title:</b> 9741 / Beyond Line of Sight (BLOS)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-17		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0401130F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Depot</i>						
B Kits						
Recurring						
Depot:EQUIPMENT Group B (Active)	1 / 0.513	2 / 2.939	- / -	7 / 5.355	- / -	7 / 5.355
Depot:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	2 / 1.530	- / -	2 / 1.530
Depot:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	1 / 0.765	- / -	1 / 0.765
<i>Subtotal: Recurring</i>	<i>- / 0.513</i>	<i>- / 2.939</i>	<i>- / -</i>	<i>- / 7.650</i>	<i>- / -</i>	<i>- / 7.650</i>
<i>Subtotal: Depot</i>	<i>- / 0.513</i>	<i>- / 2.939</i>	<i>- / -</i>	<i>- / 7.650</i>	<i>- / -</i>	<i>- / 7.650</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.513</i>	<i>- / 2.939</i>	<i>- / -</i>	<i>- / 7.650</i>	<i>- / -</i>	<i>- / 7.650</i>
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 3.392	- / -	- / 3.392
SUPPORT-EQUIP	- / -	- / -	- / 1.367	- / -	- / -	- / -
OTHER GOVT	- / -	- / -	- / -	- / 0.129	- / -	- / 0.129
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.367</i>	<i>- / 3.521</i>	<i>- / -</i>	<i>- / 3.521</i>
<b>Installation</b>						
<i>Modification Item 1 of 1: Depot</i>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>1 / 0.000</i>	<i>- / -</i>	<i>1 / 0.000</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.513</b>	<b>2.939</b>	<b>1.367</b>	<b>11.171</b>	<b>0.000</b>	<b>11.171</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C01700 / C-17A	<b>Modification Number / Title:</b> 9741 / Beyond Line of Sight (BLOS)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Depot

**Manufacturer Information**

Manufacturer Name: Boeing		Manufacturer Location: Long Beach, CA	
Administrative Leadtime (in Months): 8		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Jun 2021	Jun 2022
Delivery Dates		Jun 2022	Jun 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	<b>P-1 Line Item Number / Title:</b> C02100 / C-21
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	62.599	0.216	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	62.599	0.216	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>62.599</b>	<b>0.216</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds low-cost modifications and service bulletins for nineteen (19) C-21A aircraft, commercial equivalent to the Learjet 35. The C-21A aircraft is a twin-turbofan engine aircraft used for cargo and passenger airlift over medium ranges. The design service life is 50 years with an average of 10 years remaining. Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability. This funding may include emerging modification requirements to support Program Management Administration (PMA), Advisory and Assistant Services (A&AS), system integration lab, trainers, equipment and other government costs.

Funding may be used to address Diminishing Manufacturing Sources Material Solutions (DMSMS) issues.

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

Funding for this exhibit contained in PE 0401314F.

**Justification:**

No FY22 Funding requested.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	<b>P-1 Line Item Number / Title:</b> C03200 / C-32A
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	218.497	11.511	2.947	1.949	-	1.949	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	218.497	11.511	2.947	1.949	-	1.949	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>218.497</b>	<b>11.511</b>	<b>2.947</b>	<b>1.949</b>	<b>-</b>	<b>1.949</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

This line item funds all aircraft modifications for four (4) C-32A aircraft, a commercial derivative of the Boeing 757-200. The C-32A is a twin-engine, turboprop aircraft used to transport high-ranking United States government officials worldwide. The C-32 is expected to be in service until 2040, with an average of 18 years of service remaining. This funding may include emerging modification requirements to support Program Management Administration (PMA), Advisory and Assistance Services (A&AS), systems integration lab, trainers, equipment, other government costs, and Senior Leader Communications System modernization efforts.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

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

Funding for this exhibit is contained in PE 0401314F and 0504314F.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.603	1.009	0.010	-	0.010	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.908	1.938	1.939	-	1.939	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>11.511</b>	<b>2.947</b>	<b>1.949</b>	<b>-</b>	<b>1.949</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft		<b>P-1 Line Item Number / Title:</b> C03200 / C-32A
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
<b>Line Item MDAP/MAIS Code:</b> N/A		

**Justification:**  
FY22: Funding requested for Low Cost Modifications and FAA required Service Bulletins.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 3: Airlift Aircraft	<b>P-1 Line Item Number / Title:</b> C03700 / C-37A
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	18.055	0.435	12.985	5.984	-	5.984	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	18.055	0.435	12.985	5.984	-	5.984	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>18.055</b>	<b>0.435</b>	<b>12.985</b>	<b>5.984</b>	<b>-</b>	<b>5.984</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	0.546	-	0.546	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to nine (9) C-37A and five (5) C-37B aircraft, equivalent to commercial Gulfstream 5 and Gulfstream 550 aircraft. The C-37A/B is a twin-engine jet transport designed to transport high-ranking United States government officials worldwide. The designed service life for C-37B is 40,000 hours (average of 35,700 hours remaining). The designed service life for C-37A is 30,000 hours (average of 16,500 hours remaining). As the fleet nears the service life limits, additional evaluations are made for continued service.

This funding may include, but is not limited to, emerging modification requirements to support Program Management Administration (PMA), Advisory & Assistance Services (A&AS), systems integration lab, trainers, equipment, other government costs, and Senior Leader Communications System modernization efforts.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration (FAA) certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

Funding for this exhibit is contained in PE 0401314F.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft /  
 BSA 3: Airlift Aircraft **P-1 Line Item Number / Title:**  
 C03700 / C-37A

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401314F **Other Related Program Elements:** 0401314F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	1117 / WIDEBAND SATCOM (Capability Improvement)				- / -	- / -	- / 12.985	- / -	- / -	- / -
P-40a***	1118 / CNS/ATM Compliance (Capability Improvement)				- / 17.606	- / -	- / -	- / -	- / -	- / -
P-40a***	99999S / SERVICE BULLETINS (Capability Improvement)				- / -	- / 0.100	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 0.449	- / 0.335	- / -	- / -	- / -	- / -
P-3a	1122 / SAT 906 (Capability Improvement)		A		- / -	- / -	- / -	- / 5.984	- / 0.000	- / 5.984
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 18.055</b>	<b>- / 0.435</b>	<b>- / 12.985</b>	<b>- / 5.984</b>	<b>- / -</b>	<b>- / 5.984</b>

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

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

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

**Justification:**  
 This program, P-3A Mod 1122, SAT 906, is a new start.

FY22: Two C-37 aircraft will receive MCS 7120 modifications to replace SAT 906.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C03700 / C-37A	<b>Modification Number / Title:</b> 1122 / SAT 906

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	5.984	0.000	5.984
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	-	-	5.984	0.000	5.984
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	-	-	-	<b>5.984</b>	<b>0.000</b>	<b>5.984</b>

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

Initial Spares <i>(\$ in Millions)</i>	-	-	-	0.546	-	0.546
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 1122, SAT 906, is a new start.

Program requirement is to replace the SAT 906 satellite communications system with MCS-7120 on C-37A/B aircraft. The SAT 906 system is approaching obsolescence starting in FY22; spares will not be available for procurement and the system will no longer be repairable. The new MCS-7120 on the C-37A/B will provide aircrews the capability to communicate with Air Traffic Control (ATC) and will provide C-37 passengers several backup communication lines in order to conduct business while airborne. This installation satisfies C-37's FANS and ACARS certifications for direct communications between the crew and air traffic controllers regarding clearances, pilot requests and position reporting while airborne.

Loss of FANS or ACARS certification will greatly impact mission capability by causing C-37 to plan/fly non-optimal routes and altitudes, potentially increasing flight distance and time while decreasing fuel efficiency. It will also increase pilot workload by requiring more frequent position reporting to ATC, potentially leading to errors and increased safety risk.

This funding may include, but is not limited to, emerging requirements of support Program Management Administration (PMA), Administrative and Advisory support (A&AS), system integration lab, trainers, equipment, and other government costs (OGC).

This capability is to be installed on 12 of 16 aircraft in the Air Force inventory. Four fleet-expansion C-37B aircraft (2 delivered in FY22) will have MCS-7120 installed during production.

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

Milestone/Development Status

Commercial off-the-shelf technology

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3			<b>P-1 Line Item Number / Title:</b> C03700 / C-37A			<b>Modification Number / Title:</b> 1122 / SAT 906	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> C-37		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: MCS-7120</i>							
B Kits							
Recurring							
MCS-7120:EQUIPMENT Group B (Active)							
	- / -	- / -	- / -	2 / 1.800	- / -	2 / 1.800	
<i>Subtotal: Recurring</i>							
	- / -	- / -	- / -	- / 1.800	- / -	- / 1.800	
<i>Subtotal: MCS-7120</i>							
	- / -	- / -	- / -	- / 1.800	- / -	- / 1.800	
<i>Subtotal: Procurement, All Modification Items</i>							
	- / -	- / -	- / -	- / 1.800	- / -	- / 1.800	
<b>Support (All Modification Items)</b>							
Mod of Spares							
	- / -	- / -	- / -	- / 0.546	- / -	- / 0.546	
PMA - Contractor Services							
	- / -	- / -	- / -	- / 0.724	- / -	- / 0.724	
Data							
	- / -	- / -	- / -	- / 0.171	- / -	- / 0.171	
Type 1 Training							
	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001	
PMA - Other Gov't Costs							
	- / -	- / -	- / -	- / 1.842	- / -	- / 1.842	
<i>Subtotal: Support</i>							
	- / -	- / -	- / -	- / 3.284	- / -	- / 3.284	
<b>Installation</b>							
<i>Modification Item 1 of 1: MCS-7120</i>							
	- / -	- / -	- / -	2 / 0.900	- / -	2 / 0.900	
<i>Subtotal: Installation</i>							
	- / -	- / -	- / -	2 / 0.900	- / -	2 / 0.900	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>							
	-	-	-	5.984	0.000	5.984	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 3	<b>P-1 Line Item Number / Title:</b> C03700 / C-37A	<b>Modification Number / Title:</b> 1122 / SAT 906

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MCS-7120

**Manufacturer Information**

Manufacturer Name: Gulfstream	Manufacturer Location: Savannah, GA
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 2

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Feb 2022
Delivery Dates			Apr 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	2 / 0.900	- / -	2 / 0.900
Total	- / -	- / -	- / -	2 / 0.900	- / -	2 / 0.900

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	<b>P-1 Line Item Number / Title:</b> GLID00 / Glider Mods
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0804748F	Other Related Program Elements: N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	4.997	0.138	0.977	0.142	-	0.142	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	4.997	0.138	0.977	0.142	-	0.142	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>4.997</b>	<b>0.138</b>	<b>0.977</b>	<b>0.142</b>	<b>-</b>	<b>0.142</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

This line item funds modifications to the TG-15 and TG-16 gliders, T-41, T-51, T-53 and UV-18 aircraft used at the United States Air Force Academy. Among gliders there are two TG-15A aircraft with a design service life of 6,000 hours, three TG-15B aircraft with a design service life of 6,000 hours, and 18 TG-16A aircraft with a design service life of 12,000 hours. Powered flight consists of four T-41D aircraft with a design service life of 60,000 hours, three T-51A aircraft with a design service life of 60,000 hours and 24 T-53A aircraft with a design service life of 12,000 hours. To support parachute jumping there are three UV-18B aircraft with a design service life of 40,000 hours. The primary effort in FY22 is Low Cost Modifications, which includes UV-18B avionics modification, TG-15A/B avionics modification, various AF Academy simulator system procurements, FAA Service Bulletins, Air Worthiness Directives, Program Management and Administration, and studies.

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

Funding for this exhibit contained in PE 0804748F.

**Justification:**

Funding is required to ensure airworthiness of U.S. Air Force Academy aircraft and for low-cost modifications to extend service life, improve performance, and modernize the weapon systems.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	<b>P-1 Line Item Number / Title:</b> JPAT00 / T-6
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0604233F, 0804740F	Other Related Program Elements: 0604233F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	95.478	11.826	23.929	8.735	-	8.735	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	95.478	11.826	23.929	8.735	-	8.735	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>95.478</b>	<b>11.826</b>	<b>23.929</b>	<b>8.735</b>	<b>-</b>	<b>8.735</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

The Joint Primary Aircraft Training System (JPATS) T-6 replaces the USAF T-37B and USN T-34C training aircraft and their associated ground based training systems. The JPATS T-6 aircraft provides significant improvements over the aircraft it replaced, including a 0/0 ejection seat which accommodates a larger anthropometric pilot population, a pressurized cockpit, gravitational-force (g-force) strain reduction capabilities, and increased birdstrike protection. There are currently 443 T-6A aircraft in the Air Force inventory. Remaining service life is up to 39 years from the final delivery in May 2010. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding contained in this platform's documentation directly aids Air Education Training Command (AETC) flying training enterprise to continue its overall pilot production increase starting in FY 2021 thus reducing the USAF Pilot Shortage.

Funding for this exhibit contained in PE 0804740F.

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

The FY 2022 funding request was reduced by \$5.235 million to account for the availability of prior year execution balances.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft

**P-1 Line Item Number / Title:**  
JPAT00 / T-6

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0604233F, 0804740F **Other Related Program Elements:** 0604233F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	9871 / T-6A Crash Survivable Recorder (Capability Improvement)				- / -	- / -	- / 18.865	- / 4.342	- / -	- / 4.342
P-40a***	9873 / Canopy Fracture Initiation System (Reliability & Maintainability)				- / 1.131	- / -	- / -	- / -	- / -	- / -
P-40a***	9877 / Avionics Upgrades FAA Compliance (Reliability & Maintainability)				- / 22.974	- / 6.225	- / -	- / -	- / -	- / -
P-40a***	9878 / Aircrew Training Device (ATD) Modernization (Capability Improvement)				- / 37.541	- / 3.601	- / 3.093	- / 3.193	- / -	- / 3.193
P-40a***	9892 / Reliability & Maintainability (R&M) Safety Mods (Safety)				- / -	- / 0.100	- / 0.071	- / 0.100	- / -	- / 0.100
P-40a***	9893 / Crew System Modernization Program (Capability Improvement)				- / 30.600	- / 0.100	- / 0.100	- / 0.100	- / -	- / 0.100
P-40a***	99999S / SERVICE BULLETINS (Service Life Extension)				- / -	- / 0.100	- / 0.100	- / 0.100	- / -	- / 0.100
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 3.232	- / 1.700	- / 1.700	- / 0.900	- / -	- / 0.900
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 95.478</b>	<b>- / 11.826</b>	<b>- / 23.929</b>	<b>- / 8.735</b>	<b>- / -</b>	<b>- / 8.735</b>

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

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

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

**Justification:**  
Primary efforts in FY 2022 include the T-6A Crash Survivable Recorder, Aircrew Training Device Modernization, and Low Cost Modifications.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	<b>P-1 Line Item Number / Title:</b> T00100 / T-1
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0804741F	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	75.625	19.147	4.465	3.872	-	3.872	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	75.625	19.147	4.465	3.872	-	3.872	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>75.625</b>	<b>19.147</b>	<b>4.465</b>	<b>3.872</b>	<b>-</b>	<b>3.872</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	1.317	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The T-1A is a missionized Beech 400A used in the Airlift/Tanker track of the USAF Specialized Undergraduate Pilot Training (SUPT) and in Combat Systems Officer (CSO) training for Air Education and Training Command (AETC). It is powered by two Pratt and Whitney JT15D-5 turbofan engines mounted on the aft fuselage producing 2,900 pounds of thrust each. Avionics include Ultra High Frequency (UHF) and Very High Frequency (VHF) radios, Inertial Navigation System (INS), Tactical Air Navigation (TACAN), Airborne Direction Finder (ADF), and two Very High Frequency Omni Range/Instrument Landing System (VOR/ILS). Aircraft modified for CSO training include a Global Positioning System (GPS)-driven synthetic radar and simulated Radar Warning Receiver (RWR) in the right seat flight deck position to be utilized by the student CSO. A second student station and a second instructor station have also been added in the rear of the aircraft. The primary effort in FY 2022 is the Avionics Modification. Funding contained in this platform's documentation directly aids Air Education and Training Command (AETC) flying training enterprise.

This line item funds avionics modifications to the T-1A aircraft and simulators. This effort will install the 55 previously acquired modification kits in to T-1A trainer aircraft, 16 Operational Flight Trainers (OFTs) and deliver 14 Part Task Trainers (PTTs). All 21 CSO training-configured aircraft will receive the modification as well as 34 SUPT aircraft. The remaining 122 T-1A aircraft will not be modified due to the planned divestiture of the aircraft.

Funding request reduced from FY 2021 budget for planned divestment of T-1A airlift/tanker Undergraduate Pilot Training fleet (156 aircraft) beginning in FY 2023. USAF plans to maintain 21 CSO training-configured T-1A aircraft. T-1A OFTs and PTTs will continue to be supported and will require modernization software upgrades.

Funding is required to ensure airworthiness of T-1A aircraft, for low cost modifications, maintaining training simulators and to extend the service life of the weapon system. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Funding for this exhibit contained in PE 0804741F. The FY 2022 funding request was reduced by \$0.263 million to account for the availability of prior year execution balances. This modification supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D

**Justification:**

FY22 funding will procure 2 Operational Flight Trainers (OFTs) and 3 Part Task Trainers (PTTs) kits and installations.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft	<b>P-1 Line Item Number / Title:</b> T03800 / T-38
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0804741F	<b>Other Related Program Elements:</b> 0604233F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	324.446	37.341	40.806	49.851	-	49.851	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	324.446	37.341	40.806	49.851	-	49.851	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>324.446</b>	<b>37.341</b>	<b>40.806</b>	<b>49.851</b>	-	<b>49.851</b>	-	-	-	-	-	-

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

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

**Description:**

The T-38 is a twin engine, two seat (tandem), supersonic jet trainer used by Air Education Training Command as an advanced trainer in Specialized Undergraduate Pilot Training. Modifications are budgeted to enhance operational capability while improving flight safety, reliability, and maintainability. There are currently 497 active T-38's in the Air Force inventory (53 T-38A, 6 AT-38B and 438 T-38C) with 4 T-38C's pending removal. The T-38 first entered service in 1960 and the average age is over 50 Years old. The T-38 was designed with a 7,000 hour service life. Aircraft are now in their third service life and are sustained by upgrades and service life extensions.

Procurement efforts supporting future ACAT III Engineering Change Proposals to address obsolescence issues for the T-38 platform and accomplish the regular block upgrades on the T-38C as required to keep the system current. Block upgrades incorporate software and/or hardware improvements to comply with new capabilities mandated by Department of Defense, Federal Aviation Administration, or National Airspace System, and to address flight safety issues. The block upgrades support the T-38C aircraft and Aircrew Training Devices.

Block 11 - Updates the T-38C avionics software to include updates for the Operational Flight Program (OFP), Aircrew Training Device (ATD), Joint Mission Planning System (JMPS), and applicable Ground Station Software (GSS).

Multi-Functional Display (MFD) and the Electronic Engine Display (EED) - L3 Display Systems is unable to continue support of the T-38C MFD and EED beyond March 2026. Development of replacement displays began in FY21 to ensure continued AETC pilot production. There are 2 MFDs and 2 EEDs per aircraft (1,768 displays). A new Digital Fuel Mass Flow Transmitter will need to be incorporated into the EED redesign which will reduce Unscheduled Engine Removals (UER). This is a top driver of engine removals across the T-38C fleet; replacement will increase Mean Time Between Failure (MTBF) and save the USAF repair and maintenance costs.

Video Data Transfer Unit (VDTU) - The current T-38C VDTU is obsolete and the Compact Flash Cards (CFC) that record flight data are no longer procurable and are unsustainable in terms of repair cost, maintenance actions, aircraft downtime, and availability of replacement parts. A redesigned VDTU is required to interface at the higher data speeds inherent with new technology such as the recently installed Mission Display Processor. An increased data recorder sample rate will need to be incorporated as well as Power Level Angle Recording with Flight Data Recorder which is a sensor that will increase the recording capability of the VDTU to handle the increased data flow.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft		<b>P-1 Line Item Number / Title:</b> T03800 / T-38
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0804741F	<b>Other Related Program Elements:</b> 0604233F
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>Flight Director/Attitude Heading and Reference System (AHARS) - Requirement to develop , integrate, and replace the Attitude Director Indicator (ADI), Horizontal Situation Indicator (HSI), Attitude Gyro Control Assembly, Rate Switching Gyro, Rate Gyro Transmitter, Servo-Amplifier, and Flight Director Computer for the T-38A/AT-38B. The intent of this effort is to significantly improve sub-system reliability, suitability, and pilot safety during flight operations.</p> <p>Traffic Collision Avoidance System (TCAS) - to update firmware on approximately 448 T-38C TCAS units. The need for which derives from increased TCAS II processor failures resulting from increased squitter traffic associated with Automatic Dependent Surveillance - Broadcast (ADS-B) transmissions.</p> <p>Speed Brake Open Warning Light - Is a new requirement that will require market research and an estimate.</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p> <p>Funding for this exhibit contained in PE 0804741F.</p> <p>This requirement for T-38 programs supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D "Audits: audit of financial statements of Department of Defense components by independent external auditors.</p>		



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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 4: Trainer Aircraft

**P-1 Line Item Number / Title:**  
T03800 / T-38

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0804741F **Other Related Program Elements:** 0604233F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	6090 / T-38 Avionics (Reliability & Maintainability)				- / 96.247	- / 0.769	- / -	- / 1.554	- / -	- / 1.554
P-40a***	6092 / T-38 A/B ADS-B Out (Reliability & Maintainability)				- / 8.269	- / -	- / -	- / -	- / -	- / -
P-40a***	6093 / T-38 Canopy (Safety)				- / 0.000	- / 0.237	- / 1.573	- / 1.543	- / -	- / 1.543
P-40a***	6094 / T-38A/B ESUP II (Safety)				- / -	- / -	- / 5.000	- / -	- / -	- / -
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / 0.039	- / 0.005	- / 0.005	- / 0.005	- / -	- / 0.005
P-40a***	99999X / Low Cost Modifications (Service Life Extension)				- / 0.043	- / 0.006	- / 0.006	- / 0.006	- / -	- / 0.006
P-3a	6088 / Pacer Classic III (Service Life Extension)		A		- / 218.019	- / 33.363	- / 31.537	- / 40.379	- / 0.000	- / 40.379
P-3a	6091 / Talon Repair, Inspection and Maintenance (Reliability & Maintainability)		A		- / 1.829	- / 2.961	- / 2.685	- / 6.364	- / 0.000	- / 6.364
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 324.446</b>	<b>- / 37.341</b>	<b>- / 40.806</b>	<b>- / 49.851</b>	<b>- / -</b>	<b>- / 49.851</b>

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

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

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

**Justification:**

Primary efforts in FY 2022 include: Pacer Classic III, T-38 Avionics, Talon Repair Inspection and Maintenance, and T-38 Canopy.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4	<b>P-1 Line Item Number / Title:</b> T03800 / T-38	<b>Modification Number / Title:</b> 6088 / Pacer Classic III

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	218.019	33.363	31.537	40.379	0.000	40.379
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	218.019	33.363	31.537	40.379	0.000	40.379
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>218.019</b>	<b>33.363</b>	<b>31.537</b>	<b>40.379</b>	<b>0.000</b>	<b>40.379</b>

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

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

**Description:**

Pacer Classic III (PCIII) is a depot-level modification program which replaces known life-limited components and ensures structural sustainment of 180 T-38C aircraft which are at high risk of grounding. Timely modifications will ensure continued execution of the Air Education and Training Command (AETC) advanced undergraduate pilot training mission. PCIII will replace major structural components within the aircraft fuselage including major longerons, bulkhead/formers, internal skins and structural floors. These modifications have been categorized as Safety of Flight and determined by HQ Air Force Materiel Command (AFMC) to be required to correct material deficiencies to ensure safety of personnel, systems or equipment. If uncorrected, the hazard will ground the system or equipment, restrict flight or ground operations, or result in unacceptable risk to personnel. PCIII program requirements are documented in Air Force Form 1067: AETC 2016-037. PCIII installations will be performed by the 309 Maintenance Wing geographically separated unit at Randolph Air Force Base, Texas.

FY20 funding includes \$11.227M in this exhibit under cost element "Data" which has been removed to other priorities.

This requirement for T-38 programs supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D "Audits: audit of financial statements of Department of Defense components by independent external auditors.ed

Milestone/Development Status

Production and deployment underway.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4			<b>P-1 Line Item Number / Title:</b> T03800 / T-38			<b>Modification Number / Title:</b> 6088 / Pacer Classic III	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> T-38		<b>Modification Type:</b> Service Life Extension			<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Aircraft Modification Kits</i>							
A Kits							
Recurring							
Aircraft Modification Kits:INSTALL KITS Group A (Active)	123 / 44.000	32 / 10.629	25 / 12.715	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 44.000	- / 10.629	- / 12.715	- / -	- / -	- / -	
<i>Subtotal: Aircraft Modification Kits</i>	- / 44.000	- / 10.629	- / 12.715	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 44.000	- / 10.629	- / 12.715	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	0 / 17.791	- / -	- / -	- / -	- / -	- / -	
Data	- / -	- / 11.227	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 0.031	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 12.688	- / 0.818	- / -	- / -	- / -	- / -	
PMA - Contractor Services	- / 3.740	- / 0.397	- / 0.284	- / 0.520	- / -	- / 0.520	
PMA - Other Gov't Costs	- / 1.184	- / 0.001	- / 0.025	- / 0.050	- / -	- / 0.050	
<i>Subtotal: Support</i>	0 / 35.434	- / 12.443	- / 0.309	- / 0.570	- / -	- / 0.570	
<b>Installation</b>							
<i>Modification Item 1 of 1: Aircraft Modification Kits</i>							
	80 / 138.585	18 / 10.291	14 / 18.513	18 / 39.809	- / -	18 / 39.809	
<i>Subtotal: Installation</i>	80 / 138.585	18 / 10.291	14 / 18.513	18 / 39.809	- / -	18 / 39.809	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>218.019</b>	<b>33.363</b>	<b>31.537</b>	<b>40.379</b>	<b>0.000</b>	<b>40.379</b>	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4	<b>P-1 Line Item Number / Title:</b> T03800 / T-38	<b>Modification Number / Title:</b> 6088 / Pacer Classic III
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Aircraft Modification Kits

**Manufacturer Information**

Manufacturer Name: CPI Aero		Manufacturer Location: Edgewood, NY	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 30	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	
Delivery Dates	Sep 2022	Sep 2023	

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	80 / 138.585	18 / 10.291	14 / 18.513	11 / 25.506	- / -	11 / 25.506
FY 2020	- / -	- / -	- / -	7 / 14.303	- / -	7 / 14.303
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	80 / 138.585	18 / 10.291	14 / 18.513	18 / 39.809	- / -	18 / 39.809

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	80	5	5	3	5	0	5	4	5	5	4	5	4
Out	57	4	5	5	3	5	5	5	0	5	5	5	5

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4	<b>P-1 Line Item Number / Title:</b> T03800 / T-38	<b>Modification Number / Title:</b> 6091 / Talon Repair, Inspection and Maintenance

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1.829	2.961	2.685	6.364	0.000	6.364
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1.829	2.961	2.685	6.364	0.000	6.364
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1.829</b>	<b>2.961</b>	<b>2.685</b>	<b>6.364</b>	<b>0.000</b>	<b>6.364</b>

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

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

**Description:**

Talon Repair, Inspection and Maintenance (TRIM) is a depot-level modification program which replaces or repairs critical structural items subject to time-based degradation. TRIM effectively applies to T-38A/B/C aircraft. The 159 T-38s to be modified consist of 49 T-38A/Bs that lack the structural modifications made during the Propulsion Modernization Program and 110 T-38Cs that lack the structural modifications made during PC III. Extended service requirements and continued utilization of these T-38A/B/C aircraft drive the need to correct fatigue damage to key parts including upper/lower center longerons and wing attach bulkheads. Modifications will ensure fleet viability through users' intended retirement dates; ensuring airworthiness of fleet.

This requirement for T-38 programs supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D "Audits: audit of financial statements of Department of Defense components by independent external auditors.

**Milestone/Development Status**

Approved configuration parts list been produced to support prototype and verification.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4			<b>P-1 Line Item Number / Title:</b> T03800 / T-38		<b>Modification Number / Title:</b> 6091 / Talon Repair, Inspection and Maintenance	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> T-38		<b>Modification Type:</b> Reliability & Maintainability		<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Install Kit</i>						
A Kits						
Recurring						
Install Kit:INSTALL KITS Group A (Active)	2 / 1.820	12 / 2.935	17 / 2.468	23 / 3.933	- / -	23 / 3.933
<i>Subtotal: Recurring</i>	- / 1.820	- / 2.935	- / 2.468	- / 3.933	- / -	- / 3.933
<i>Subtotal: Install Kit</i>	- / 1.820	- / 2.935	- / 2.468	- / 3.933	- / -	- / 3.933
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.820	- / 2.935	- / 2.468	- / 3.933	- / -	- / 3.933
<b>Support (All Modification Items)</b>						
SUPPORT-EQUIP	- / -	- / -	- / 0.195	- / 0.664	- / -	- / 0.664
PMA - Other Gov't Costs	- / 0.009	- / 0.026	- / 0.022	- / 0.100	- / -	- / 0.100
PMA - Contractor Services	- / -	- / -	- / -	- / 0.300	- / -	- / 0.300
<i>Subtotal: Support</i>	- / 0.009	- / 0.026	- / 0.217	- / 1.064	- / -	- / 1.064
<b>Installation</b>						
<i>Modification Item 1 of 1: Install Kit</i>						
	- / -	- / -	- / -	1 / 1.367	- / -	1 / 1.367
<i>Subtotal: Installation</i>	- / -	- / -	- / -	1 / 1.367	- / -	1 / 1.367
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>1.829</b>	<b>2.961</b>	<b>2.685</b>	<b>6.364</b>	<b>0.000</b>	<b>6.364</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 4	<b>P-1 Line Item Number / Title:</b> T03800 / T-38	<b>Modification Number / Title:</b> 6091 / Talon Repair, Inspection and Maintenance

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Install Kit

**Manufacturer Information**

Manufacturer Name: CPI Aerostructures, Inc.	Manufacturer Location: Edgewood, NY
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 42

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Nov 2019	Jan 2021	Jun 2022
Delivery Dates	May 2023	Jul 2024	Dec 2025

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	1 / 1.367	- / -	1 / 1.367
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 1.367	- / -	1 / 1.367

**Installation Schedule**

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

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
11U200 / U-2 Mods

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305202F, 0305206F **Other Related Program Elements:** 0305202F, 0604257F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	157.711	58.563	120.218	126.809	0.000	126.809	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	157.711	58.563	120.218	126.809	0.000	126.809	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>157.711</b>	<b>58.563</b>	<b>120.218</b>	<b>126.809</b>	<b>0.000</b>	<b>126.809</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	28.097	43.058	7.692	-	7.692	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

FY21 funding totals include \$9.600M appropriated for Overseas Contingency Operations.

The U-2S Dragon Lady platform is a high-demand/low-density aircraft equipped with state-of-the-art sensor and data link systems providing mission essential Intelligence, Surveillance, and Reconnaissance (ISR) to the Combatant Commands, Joint and Combined forces, and the IC community in peacetime and wartime. The program supports core missions such as Sensitive Reconnaissance Operations (outlined in CJCSI 3250.01) in addition to other missions that include execution of CCMD OPLANs and CONPLANs, Humanitarian Assistance/Disaster Response (HADR), Counter-Insurgency (COIN) operations and third-party treaty verification/monitoring via the OLIVE HARVEST mission.

In the FY22 budget, the Air Force will maintain operational capability of the U-2 platform. FY22 procurement funds will be dedicated and required to sustain NDAA directed capability and capacity, and safe and effective operations until the remainder of U-2 scheduled service and AF divestiture in FY26. Efforts planned as part of the FY22 budget are required to ensure continuous worldwide operations through the remainder of U-2 service. Furthermore, FY22 efforts largely continue existing contracted efforts, which address reliability, maintainability, supportability, Diminishing Manufacturing Sources and Material Shortages (DMSMS), flight test, safety issues, and integration of capability development activities in support of the broader ISR portfolio.

During this time, procurement efforts will address sustainment, modification, and modernization of sensors and associated mission equipment that face near-terms sustainability and DMSMS. Also, procurement effort focus on integrating/expanding platform capabilities within the larger ISR portfolio; these efforts include (but are not limited to) Advanced Synthetic Aperture Radar System (ASARS) 2B/C, avionics and navigation tech refresh, and datalink infrastructure upgrades, modernization of aircraft data links, next generation SIGINT, and quick reaction capabilities (QRCs); enabling improved collection against emerging threats and capabilities through the remainder of scheduled U-2 operations.

Additionally, the U-2 program will continue to support emergent and/or experimental efforts in support of Joint All-Domain Command and Control (JADC2) and Advanced Battle Management System (ABMS) as a platform surrogate for risk reduction.

Currently, the U-2 Program provides funding for an ASARS acquisition effort. This effort will design, fabricate, integrate, and field system capability enhancements for a high-altitude deep look SAR system. This mitigates a DMSMS issue with the current U-2 SAR sensor and processor and implements an open architecture approach.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0305202F, 0305206F	<b>Other Related Program Elements:</b> 0305202F, 0604257F
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	4494 / U-2 Mod (Other)		B		- / 157.711	- / 58.563	- / 72.080	- / 57.043	- / 0.000	- / 57.043
P-3a	4496 / ASARS-2B Procurement for U-2 (Other)		B		- / -	- / -	- / 48.138	- / 69.766	- / 0.000	- / 69.766
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 157.711</b>	<b>- / 58.563</b>	<b>- / 120.218</b>	<b>- / 126.809</b>	<b>- / 0.000</b>	<b>- / 126.809</b>

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

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

**Justification:**  
FY22 budget reflects prioritization of currently contracted efforts to maintain safe and effective operations through the remainder of expected operations. Procurement funding continues to address prudent acquisition efforts to address only safety-of-flight, DMSMS, and sustainability issues associated with the platform in both airframe and sensors.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods	<b>Modification Number / Title:</b> 4494 / U-2 Mod

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	157.711	58.563	72.080	57.043	0.000	57.043
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	157.711	58.563	72.080	57.043	0.000	57.043
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>157.711</b>	<b>58.563</b>	<b>72.080</b>	<b>57.043</b>	<b>0.000</b>	<b>57.043</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The U-2 Program will continue to address reliability, maintainability, sustainability, and safety issues and support U-2 integration of payloads and capabilities. Aircraft and sensor sustainment or enhancements include activities such as, but not limited to the following current programs:

- Advanced Synthetic Aperture Radar System (ASARS) procurement, sustainment, and enhancements to support collection capability and capacity requirements to meet global ISR requirements.
- Multi-Spectral Sensor sustainment and enhancements to optics and focal planes in support of operational requirements.
- Electronic Warfare System (EWS) sustainment and enhancements to mitigate DMS and to defend against current and emerging threat systems.
- Data Link sustainment and enhancement: Development, integration and test of beyond line of sight (BLOS) and tactical data links (L-16, IFDL, MADL, etc.) in support of operational requirements and to mitigate DMSMS.
- Modification programs in support safety of flight, DMSMS concerns, support of operational capability and capacity requirements to include: airframe sustainment, Egress System Sustainment and Suitability Effort, helmet and Full Pressure Suit technical refresh, avionics, mission planning, navigation system and stellar tracker initiatives, advanced and agile systems/payloads, Open Mission Systems and Unmanned Aerospace Systems Command and Control Standard Initiative (OMS/UCI) standards compliance, payload sensors, and associated ground support equipment.
- Signals Intelligence (SIGINT) system sustainment, modernization, enhancement, test and integration to meet new/emerging operational requirements.
- Navigation software/infrastructure, and avionics refresh and upgrades to address DMSMS issues while increase capability in the integrated intelligence environment. May include procurement for non-GPS precision, navigation, and timing (PNT) hardware and software.

**Milestone/Development Status**

Various efforts will continue to develop technologies and capabilities supporting U-2 operations, and will be fielded onto the U-2 platforms, on a schedule dependent on system requirements.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods		<b>Modification Number / Title:</b> 4494 / U-2 Mod	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> U-2		<b>Modification Type:</b> Other			<b>Related RDT&amp;E PEs:</b> 0305202F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0305202F	- / 193.792	- / 36.389	- / 18.660	- / 18.319	- / -	- / 18.319
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> U-2 Update Block 20-1						
A Kits						
Recurring						
U-2 Update Block 20-1:INSTALL KITS Group A (Active)	21 / 110.674	9 / 40.412	22 / 51.224	12 / 37.997	- / -	12 / 37.997
<i>Subtotal: Recurring</i>	- / 110.674	- / 40.412	- / 51.224	- / 37.997	- / -	- / 37.997
<i>Subtotal: U-2 Update Block 20-1</i>	- / 110.674	- / 40.412	- / 51.224	- / 37.997	- / -	- / 37.997
<i>Subtotal: Procurement, All Modification Items</i>	- / 110.674	- / 40.412	- / 51.224	- / 37.997	- / -	- / 37.997
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> U-2 Update Block 20-1	21 / 47.037	9 / 18.151	22 / 20.856	12 / 19.046	- / -	12 / 19.046
<i>Subtotal: Installation</i>	21 / 47.037	9 / 18.151	22 / 20.856	12 / 19.046	- / -	12 / 19.046
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>157.711</b>	<b>58.563</b>	<b>72.080</b>	<b>57.043</b>	<b>0.000</b>	<b>57.043</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods	<b>Modification Number / Title:</b> 4494 / U-2 Mod
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** U-2 Update Block 20-1

**Manufacturer Information**

Manufacturer Name: Details Classified		Manufacturer Location: Details Classified	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 6	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Jul 2020	Jul 2021	Jul 2022

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	21 / 47.037	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	9 / 18.151	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	22 / 20.856	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	12 / 19.046	- / -	12 / 19.046
<b>Total</b>	21 / 47.037	9 / 18.151	22 / 20.856	12 / 19.046	- / -	12 / 19.046

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	21	3	2	2	2	8	8	4	2	4	4	2	2
Out	21	3	2	2	2	8	8	4	2	4	4	2	2

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods	<b>Modification Number / Title:</b> 4496 / ASARS-2B Procurement for U-2

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	48.138	69.766	0.000	69.766
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	48.138	69.766	0.000	69.766
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>48.138</b>	<b>69.766</b>	<b>0.000</b>	<b>69.766</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	28.097	43.058	7.692	-	7.692
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Advanced Synthetic Aperture Radar System (ASARS)-2B program replaces the front end components of the ASARS-2A airborne radar to alleviate reduction in current ASARS-2A capability starting in FY21 due to significant diminishing manufacturing sources and material shortages (DMSMS) issues. ASARS-2B fixes these front end DMSMS issues while advancing the AF high altitude long range ISR radar capabilities. ASARS-2B incorporates a new Active Electronically Scanned Array (AESA) antenna, Power Conditioning Unit (PCU), and Liquid Cooling System (LCS) while replacing the existing ASARS-2A Receiver Exciter Controller (REC) and radar data processing software on the Onboard Processor (OBP). The front-end (AESA, PCU, and LCS) together with the replaced/modified components (REC and OBP) significantly improve existing Synthetic Aperture Radar (SAR) and Ground Moving Target Indicator (GMTI) capabilities while adding new Maritime capabilities. These efforts will align with back end up grades, previously referred to as ASARS-2C.

Validated requirements consists of the "Improved Synthetic Aperture Radar for the U-2" Operational Requirement Document (Apr 1996) and approved AF Form 1067s. It also aligns with the USECAF/VCSAF "Interim Guidance on High Altitude ISR Transition Plan", dated 19 Oct 2017. Current efforts are collaborative in funding and scheduling with PE 0305206F & PE 0604257F. ASARS-2B (front-end) effort is NOT a new start, and has been previously planned for in PE 35202F.

**Milestone/Development Status**

The ASARS-2B program builds upon and operationalizes the ASARS-2B Technology Demonstration effort, funded under Advanced Technology and Sensors PE 0604257F, which concludes in early FY19 with flight demonstrations. ASARS-2B expects contract award in FY19 to complete non-recurring engineering and build/integrate of two systems for flight test activities expected early FY22. A production contract will be awarded by late FY21 to produce ASARS-2B operational systems and initial spares with an Initial Operational Capability expected in FY23. Efforts will be made to align procurement of ASARS-2B with ASARS-2C ("back-end"/processor) to the max extent possible IAW CSAF/SECAF rapid innovation initiatives.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods		<b>Modification Number / Title:</b> 4496 / ASARS-2B Procurement for U-2	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> U-2		<b>Modification Type:</b> Other		<b>Related RDT&amp;E PEs:</b> 0305202F, 0604257F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> ASARS-2B						
A Kits						
Recurring						
ASARS-2B:INSTALL KITS Group A (Active)	- / -	- / -	1 / 48.138	2 / 69.766	- / -	2 / 69.766
<i>Subtotal: Recurring</i>	- / -	- / -	- / 48.138	- / 69.766	- / -	- / 69.766
<i>Subtotal: ASARS-2B</i>	- / -	- / -	- / 48.138	- / 69.766	- / -	- / 69.766
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 48.138	- / 69.766	- / -	- / 69.766
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	-	-	48.138	69.766	0.000	69.766

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> 11U200 / U-2 Mods	
<b>Modification Number / Title:</b> 4496 / ASARS-2B Procurement for U-2			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> ASARS-2B			
<b>Manufacturer Information</b>			
Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 24	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	Jun 2022
Delivery Dates		Mar 2023	Jun 2024
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 8	



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C01000 / KC-10A (ATCA)
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401219F, 0401897F	Other Related Program Elements: 0401219F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	62.081	2.108	0.117	1.902	-	1.902	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	62.081	2.108	0.117	1.902	-	1.902	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>62.081</b>	<b>2.108</b>	<b>0.117</b>	<b>1.902</b>	-	<b>1.902</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	0.600	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications for the fleet of 56 KC-10 aircraft. The three engine KC-10 serves a dual role by providing both air refueling and strategic airlift support. The aircraft provides air refueling by using both the boom and the drogue methods and can carry up to 56 standard 463-L pallets. The primary modifications are Service Bulletins (SBs) that address obsolescence issues, provide worldwide civil airspace accessibility, and incorporate aging aircraft and FAA certification requirements.

Funding for this exhibit is contained in PE 0401219F and PE 0401897F

**Justification:**

FY2022 funding for Service Bulletins, Airworthiness Directives, and All Operator Letters issued to correct deficiencies.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C01200 / C-12
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	17.657	3.021	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	17.657	3.021	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>17.657</b>	<b>3.021</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds low-cost modifications and service bulletins for twenty-nine (29) C-12 C/D/F/J aircraft, commercial equivalent to the Beech Craft Super King Air. The C-12 is a twin-turboprop, support-airlift aircraft used to transport cargo and passengers over medium distances. The design service life is 30,000 hours with 16,300 remaining on the C (16), 19,600 hours remaining on the D (6), 7,600 on the F (3), 12,300 on the J (4).

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration certification while improving flight safety, reliability, and maintainability. Support funding for emerging modification requirements to support PMA, A&AS, system integration lab, trainers, equipment and other government costs.

Funding may be used to address Diminishing Manufacturing Sources Material Shortages (DMSMS) issues.

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

Funding for this exhibit contained in PE 0401314F.

**Justification:**

No funding requested in FY 2022.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
C02500 / VC-25A Mod

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0401314F **Other Related Program Elements:** 0401314F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	268.600	48.624	1.983	0.096	-	0.096	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	268.600	48.624	1.983	0.096	-	0.096	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>268.600</b>	<b>48.624</b>	<b>1.983</b>	<b>0.096</b>	-	<b>0.096</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds aircraft modernization efforts for two (2) VC-25A presidential support aircraft, a commercial derivative of the commercial Boeing 747-200. The aircraft are commonly referred to as "Air Force One." The aircraft were purchased in FY87, modified by Boeing to meet presidential requirements, and delivered in FY91. These on-going modifications are to extend the service life until the VC-25B aircraft are fielded in the 2025 timeframe.

FY20 funding was for the last VC-25A Block Upgrade, ensuring aircraft viability until the VC-25B program reaches full operational capability. The upgrade included installing protected satellite communications, weather radar, digital/voice data systems, and network capabilities.

Congress established a VC-25A retirement date of 31 Dec 2025. Funding for the VC-25A is substantially reduced in FY21 and beyond to comply with 10 U.S.C 2244a. Pursuant to the provisions of that law, SecAF determined the following capabilities modifications are in the national security interest of the United States:

ADS-B Out/Mode 5 Identification Friend or Foe (IFF) FAA mandate, Diminishing Manufacturing Sources and Material Solutions (DMSMS), VIPSAM Protected SATCOM (VPS), Presidential Information Technology Communication (PITC), Wi-Fi and Commercial Internet, Bandwidth Aggregation, Multi-Role Tactical Common Data Link (MR-TCDL), Mobile User Objective System (MUOS) and High Definition Video Teleconference (HDVTC).

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration (FAA) airworthiness certification while improving flight safety, reliability, and maintainability.

**Justification:**

FY 2022 funding is required for low cost mods and service bulletins.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C04000 / C-40
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	127.779	0.256	7.252	0.262	-	0.262	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	127.779	0.256	7.252	0.262	-	0.262	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>127.779</b>	<b>0.256</b>	<b>7.252</b>	<b>0.262</b>	<b>-</b>	<b>0.262</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

This line item funds all modifications for four (4) C-40B and seven (7) C-40C aircraft, commercial-derivative Boeing 737 business jets. The C-40B/C is a twin-engine, turbo fan aircraft used to airlift DoD officials and United States government personnel worldwide. The design service life is 35,000 flying hours with an average of 24,000 hours remaining. This funding may include emerging modification requirements to support Program Management Administration (PMA), Advisory & Assistance Services (A&AS), systems integration lab, trainers, equipment, other government costs, and Senior Leader Communications System modernization efforts.

Service bulletins and low cost modifications are necessary for continuing Federal Aviation Administration (FAA) certification while improving flight safety, reliability, and maintainability.

Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

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

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PEs 0401314F and 0504324F

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.256	7.252	0.262	-	0.262	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C04000 / C-40
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0401314F	<b>Other Related Program Elements:</b> 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	0.256	7.252	0.262	-	0.262	-	-	-	-

**Justification:**

FY 2022 funding is required for Low Cost Mods and Service Bulletins.



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C13000 / C-130
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0401115F, 0401897F, 0404011F	<b>Other Related Program Elements:</b> 0207224F, 0401115F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,657.100	186.066	265.580	29.071	-	29.071	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,657.100	186.066	265.580	29.071	-	29.071	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,657.100</b>	<b>186.066</b>	<b>265.580</b>	<b>29.071</b>	<b>-</b>	<b>29.071</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

This line item funds modifications to the C-130H and Special Mission C-130 aircraft. The four engine C-130H provides theater airlift and carries either 92 troops, 64 paratroopers, 74 litter patients, or 6 standard 463-L pallets.

Provides weapon system modifications and upgrades to meet USAF mission requirements for the C-130H fleet, to include LC-130Hs owned by the National Science Foundation (NSF), but operated and maintained by the Air National Guard (ANG) to meet USAF mission requirements. Unique NSF modification and upgrades designed to meet NSF requirements will be separately funded by the NSF.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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

Funding for this exhibit is contained in PEs 0401115F, 0401897F, and 0404011F.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	66.594	115.523	13.509	-	13.509	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	108.480	150.057	11.671	-	11.671	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.992	-	3.891	-	3.891	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> C13000 / C-130
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0401115F, 0401897F, 0404011F	<b>Other Related Program Elements:</b> 0207224F, 0401115F

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	186.066	265.580	29.071	-	29.071	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
C13000 / C-130

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207224F, 0401115F, 0401897F, 0404011F **Other Related Program Elements:** 0207224F, 0401115F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	3773 / C-130 8-Bladed Propeller Upgrade (Capability Improvement)				- / 196.004	- / 55.000	- / 180.000	- / -	- / -	- / -
P-40a***	8221 / C-130 ALR-69A Radar Warning Receiver (RWR) (Capability Improvement)				- / 36.000	- / -	- / -	- / -	- / -	- / -
P-40a***	8578 / C-130 SYSTEMS/STRUCTURE (PHASE II MODERNIZATION) (Service Life Extension)				- / 673.495	- / 14.512	- / -	- / 0.000	- / -	- / 0.000
P-40a***	9139 / MOD V IFF (Capability Improvement)				- / 42.100	- / -	- / -	- / -	- / -	- / -
P-40a***	9141 / C-130 CRASHWORTHY LOADMASTER SEAT (No text provided.)				- / 1.853	- / -	- / -	- / -	- / -	- / -
P-40a***	9149 / C-130 Aux Hyd Pump (Capability Improvement)				- / 16.599	- / -	- / -	- / -	- / -	- / -
P-40a***	92302 / C-130H Avionics Modernization Program (AMP) Increment 1 (Capability Improvement)				- / 83.943	- / 7.185	- / -	- / 0.000	- / -	- / 0.000
P-40a***	92308 / T-56 3.5 Engine Mod (Capability Improvement)				- / 261.000	- / 79.000	- / 79.000	- / -	- / -	- / -
P-40a***	92309 / Onboard Fire Incident Response Equipment (Capability Improvement)				- / 144.429	- / 5.538	- / -	- / 0.100	- / -	- / 0.100
P-40a***	92310 / HC-130P/N Variable Speed Drogue (VSD) (Capability Improvement)				- / 1.410	- / -	- / -	- / -	- / -	- / -
P-40a***	92311 / Electronic Propeller Control System (EPCS) (Capability Improvement)				- / 141.770	- / -	- / -	- / -	- / -	- / -
P-40a***	92312 / In-Flight Propeller Balancing System (IPBS) (Reliability & Maintainability)				- / 1.500	- / -	- / -	- / -	- / -	- / -
P-40a***	92315 / C-130H Simulator (Other)				- / 25.000	- / 15.675	- / -	- / 7.128	- / -	- / 7.128
P-40a***	92316 / AFSOC C-130 Mods (Capability Improvement)				- / 14.705	- / 7.937	- / -	- / -	- / -	- / -
P-40a***	92322 / MAFFS (Capability Improvement)				- / -	- / -	- / 4.600	- / -	- / -	- / -
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Safety)				- / 3.034	- / -	- / -	- / -	- / -	- / -
P-40a***	99999C / HC-130 Low Cost Mods (Reliability & Maintainability)				- / 1.907	- / -	- / -	- / -	- / -	- / -
P-40a***	99999M / MISC SIMULATOR UPDATES (Capability Improvement)				- / 0.703	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 11.648	- / 1.219	- / 1.980	- / 1.839	- / -	- / 1.839
P-3a	8518 / C-130H Avionics Modernization Program (AMP) Increment 2 (Capability Improvement)			B	- / 0.000	- / 0.000	- / 0.000	- / 20.004	- / 0.000	- / 20.004
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 1,657.100</b>	<b>- / 186.066</b>	<b>- / 265.580</b>	<b>- / 29.071</b>	<b>- / -</b>	<b>- / 29.071</b>

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

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

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

**Justification:**  
This program, P-3A Mod 8518, C-130H Avionics Modernization Program (AMP) Increment 2, is a new start.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> C13000 / C-130
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0401115F, 0401897F, 0404011F	<b>Other Related Program Elements:</b> 0207224F, 0401115F
<b>Line Item MDAP/MAIS Code:</b> N/A		
This program, P-3A Mod 92309, Onboard Fire Incident Response Equipment, is a new start.  FY 2022 primary efforts include: C-130 AMP Inc 2, C-130H Simulator, Low Cost Modifications, and Onboard Fire Incident Response Equipment.		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13000 / C-130	<b>Modification Number / Title:</b> 8518 / C-130H Avionics Modernization Program (AMP) Increment 2

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	0.000	20.004	0.000	20.004
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	0.000	20.004	0.000	20.004
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>20.004</b>	<b>0.000</b>	<b>20.004</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 8518, C-130H Avionics Modernization Program (AMP) Increment 2, is a new start. The C-130H AMP Increment 2 program performs comprehensive avionics and cockpit modernization which replaces aging unreliable equipment and adds combat capability enhancements. It also resolves select obsolescence and Diminishing Manufacturing Source (DMS) issues with solutions that may include life of type buys or bridge buys, as well as provides Type 1 training and modifies the C-130H aircrew and maintenance training systems and courseware. Funding also includes depot activation, program office support, Program Management Administration (PMA) activities and studies and risk reduction efforts as necessary. The DMS effort includes removal of end-of-life software/hardware within simulator systems and a move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. The Capability Development Document (CDD) for this program was approved on 8 Aug 14.

The 92321 C-130H Mobile User Objective System/Second generation Anti-Jam Tactical UHF Radio for NATO (MUOS/SATURN) Capability Improvement program will be executed under the 8518 AMP Increment 2 program for kit buys and installations to capitalize on aircraft downtime efficiencies.

The C-130H requires global Beyond Line of Sight (BLOS) secure voice communications (classified up to SECRET) via Ultra High Frequency Military Satellite Communication (UHF MILSATCOM) connectivity. Funding timelines and UHF Follow-On MILSATCOM end of life dictate a MUOS-capable radio solution in order to fully utilize Department of Defense' (DOD) new UHF MILSATCOM constellation and waveform, Full Operational Frequency (FOC) 2017. The MUOS satellite constellation and radios will support backwards compatible secure BLOS communications connectivity with legacy users of the Non-Demand Assigned Multiple Access (DAMA) and Integrated Waveform (IW) communications systems.

The C-130H requires the significantly improved anti-jam capability provided by SATURN to remain interoperable with other AF, DOD, NATO and coalition aircraft. SATURN is the next generation UHF line-of-sight (LOS) anti-jam capability that will supplement and replace the currently installed HAVE QUICK II UHF LOS anti-jam capability.

This funding includes Rapid Global Mobility (RGM) platform related activities including, but not limited to, fielding actions such as kit buys, installations, and support equipment.

The C-130H AMP Increment 2 program provides weapon system modifications and upgrades to meet USAF mission requirements for the C-130 fleet, to include LC-130Hs owned by the National Science Foundation (NSF), but operated and maintained by the Air National Guard (ANG) to meet USAF mission requirements. Unique NSF modification and upgrades designed to meet NSF requirements will be separately funded by the NSF.

The C-130H AMP Increment 2 program modifies up to 155 C-130H USAF-owned aircraft consisting of H3s, H2.5s, H2s, and LC-130H aircraft. The Engineering and Manufacturing Development (EMD) phase consists of up to 4 prototype aircraft that represent variations in mission design, with the remaining aircraft modified in the production phase.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13000 / C-130	<b>Modification Number / Title:</b> 8518 / C-130H Avionics Modernization Program (AMP) Increment 2
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>

Milestone/Development Status

C-130H AMP Increment 2 contract was awarded 3rd quarter of FY19. Preliminary Design Review took place 3rd quarter FY20 and Critical Design Review was accomplished in the 1st quarter FY21.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	4.442	-	4.442
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	11.671	-	11.671
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	3.891	-	3.891
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>0.000</b>	<b>20.004</b>	<b>0.000</b>	<b>20.004</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C13000 / C-130			<b>Modification Number / Title:</b> 8518 / C-130H Avionics Modernization Program (AMP) Increment 2	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-130H			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401115F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0401115F	4 / 68.251	- / 73.732	- / 41.896	- / 9.359	- / -	- / 9.359	
<b>Procurement</b>							
<b>Modification Item 1 of 2: C-130 AMP Incr 2 - B</b>							
B Kits							
Recurring							
C-130 AMP Incr 2 - B:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	3 / 6.881	- / -	3 / 6.881	
C-130 AMP Incr 2 - B:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	1 / 2.294	- / -	1 / 2.294	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 9.175	- / -	- / 9.175	
<i>Subtotal: C-130 AMP Incr 2 - B</i>	- / -	- / -	- / -	- / 9.175	- / -	- / 9.175	
<b>Modification Item 2 of 2: COMMON: C-130H AMP Incr 2 - A</b>							
A Kits							
Recurring							
COMMON: C-130H AMP Incr 2 - A:INSTALL KITS Group A (Guard)	- / -	- / -	- / -	3 / 1.214	- / -	3 / 1.214	
COMMON: C-130H AMP Incr 2 - A:INSTALL KITS Group A (Reserve)	- / -	- / -	- / -	1 / 0.405	- / -	1 / 0.405	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.619	- / -	- / 1.619	
<i>Subtotal: COMMON: C-130H AMP Incr 2 - A</i>	- / -	- / -	- / -	- / 1.619	- / -	- / 1.619	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 10.794	- / -	- / 10.794	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	
OTHER GOVT	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001	
Change Orders	- / -	- / -	- / -	- / 0.149	- / -	- / 0.149	
SIM/TRAINER	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001	
Data	- / -	- / -	- / -	- / 0.259	- / -	- / 0.259	
SUPPORT-EQUIP	- / -	- / -	- / -	- / 1.000	- / -	- / 1.000	
ICS-Labor	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	
ICS-Material	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001	
PMA - Contractor Services	- / -	- / -	- / -	- / 2.930	- / -	- / 2.930	
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 0.100	- / -	- / 0.100	
Type 1 Training	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13000 / C-130	<b>Modification Number / Title:</b> 8518 / C-130H Avionics Modernization Program (AMP) Increment 2

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> C-130H	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0401115F
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Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 4.442	- / -	- / 4.442
<b>Installation</b>						
<i>Modification Item 1 of 2: C-130 AMP Incr 2 - B</i>	- / -	- / -	- / -	4 / 4.768	- / -	4 / 4.768
<i>Subtotal: Installation</i>	- / -	- / -	- / -	4 / 4.768	- / -	4 / 4.768
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>20.004</b>	<b>0.000</b>	<b>20.004</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13000 / C-130	<b>Modification Number / Title:</b> 8518 / C-130H Avionics Modernization Program (AMP) Increment 2

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** C-130 AMP Incr 2 - B

**Manufacturer Information**

Manufacturer Name: L3Harris	Manufacturer Location: Waco, TX
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 3

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Jun 2022
Delivery Dates			Sep 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	4 / 4.768	- / -	4 / 4.768
Total	- / -	- / -	- / -	4 / 4.768	- / -	4 / 4.768

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> C13000 / C-130	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> COMMON: C-130H AMP Incr 2 - A			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
C1300J / C-130J Mods

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401115F, 0401132F, 0401897F **Other Related Program Elements:** 0401115F, 0401132F, 0401897F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	525.272	122.302	136.632	110.784	-	110.784	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	525.272	122.302	136.632	110.784	-	110.784	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>525.272</b>	<b>122.302</b>	<b>136.632</b>	<b>110.784</b>	-	<b>110.784</b>	-	-	-	-	-	-

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

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

**Description:**

The C-130J is a medium-size transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 ft) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/Hs and the C-130J (short).

Other variants of the USAF C-130J fleet are all short-bodied aircraft and include the EC-130J (airborne psychological operations), WC-130J (weather reconnaissance), HC-130J (combat search and rescue), MC-130J (special operations), and the AC-130J (close air support and armed reconnaissance).

As of 1 Jan 2021, there have been 245 USAF C-130J aircraft deliveries: variants include C-130J - 131, C-130J (short) - 10, WC-130J - 10, EC-130J - 7, HC-130J - 37, MC/AC-130J - 69. The designed service life is 35 years and the average service life remaining is 26.6 years.

Funding for this exhibit is contained in PE 0401132F and PE 0401897F. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

In FY22, the center wing box replacement program continues with the installation of enhanced service life (ESL) center wing kits and the procurement of ESL kits. Since Nov 2009, all production C-130Js have been delivered with the ESL center wing.

In order to better manage the fleet and avoid having to simultaneously support three separate aircraft configurations (Block 6, Block 7 and Block 8.1), Blocks 7.0 and 8.1 have been combined into one aircraft modification program. This way the aircraft and trainers will only have to be modified one time. The Block 8.1 mod includes Block 7.0 content.

The international C-130J Block 8.1 operational test & evaluation (OT&E) is complete.

Block 8.1 includes ADS-B Out and Mode V IFF as well as 34 additional capabilities. In order to meet the Federal Aviation Administration (FAA) 2020 mandate, the USAF installed the Block 8.1 ADS-B Out/Mode V IFF solution on all C-130J variants not scheduled to receive Block 8.1 by January 2020. All C-130Js still require Block 8.1.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to fielding actions.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401115F, 0401132F, 0401897F	<b>Other Related Program Elements:</b> 0401115F, 0401132F, 0401897F
<b>Line Item MDAP/MAIS Code:</b> N/A		

NOTE: USMC KC-130Js and USCG HC-130Js are following USAF's lead and will also field combined Block 7/8.1 aircraft.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	122.302	136.632	110.784	-	110.784	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>122.302</b>	<b>136.632</b>	<b>110.784</b>	-	<b>110.784</b>	-	-	-	-

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
C1300J / C-130J Mods

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401115F, 0401132F, 0401897F **Other Related Program Elements:** 0401115F, 0401132F, 0401897F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	_2612 / Avionics System and Structural Modifications (Capability Improvement)				- / 27.628	- / 4.990	- / 0.750	- / 0.200	- / -	- / 0.200
P-40a***	_5296 / Wind Gust Brake (Reliability & Maintainability)				- / 39.849	- / -	- / -	- / -	- / -	- / -
P-40a***	8668 / WST Threat Generators (Capability Improvement)				- / 0.796	- / -	- / 5.948	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Safety)				- / 10.210	- / 0.650	- / 0.750	- / 0.200	- / -	- / 0.200
P-3a	5222 / BLOCK 8.1 (Capability Improvement)		B		- / 329.725	- / 90.979	- / 115.790	- / 87.130	- / 0.000	- / 87.130
P-3a	8646 / C-130J Center Wing Replacement (Service Life Extension)		A		- / 117.064	- / 25.683	- / 13.394	- / 23.254	- / 0.000	- / 23.254
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 525.272</b>	<b>- / 122.302</b>	<b>- / 136.632</b>	<b>- / 110.784</b>	<b>- / -</b>	<b>- / 110.784</b>

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

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

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

**Justification:**

FY 2022 funding request includes: Block 8.1, C-130J Center Wing Replacement, Low Cost mods, and Avionics Systems and Structures.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods			<b>Modification Number / Title:</b> 5222 / BLOCK 8.1		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		329.725	90.979	115.790	87.130	0.000	87.130
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		329.725	90.979	115.790	87.130	0.000	87.130
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>329.725</b>	<b>90.979</b>	<b>115.790</b>	<b>87.130</b>	<b>0.000</b>	<b>87.130</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

The C-130J combined 7.0 and 8.1 Block Upgrades (BU) modification program funds the procurement and installation of Communication, Navigation and Surveillance / Air Traffic Management (CNS/ATM) navigation safety and other aircraft hardware and software improvements on USAF C-130J aircraft and associated training systems. The combined BU 7.0 and 8.1 (now called just Block 8.1) is being implemented to maintain access to global airspace, enhance aircraft navigational accuracy and aircrew situational awareness. It increases overall C-130J operational utility/effectiveness and reduces C-130J systems/parts obsolescence.

Block 8.1 provides 38 capabilities for the C-130J including: a new Flight Management System, civil GPS, Link-16 (MIDS LVT BU2 and JTRS), digital maps, Mission Computer - Operational Flight Program (MC-OPF), a modified control yoke, TEMPEST compliance, Identification Friend or Foe (IFF) Transponder Mode 5, Enhanced Inter-Communication System, CNS/ATM Civil Data Link and Automatic Dependent Surveillance Broadcast (ADS-B) out. HQ AMC procures the common Group B Kits only for the EC/HC Block 8.1 program. All variant unique hardware is procured by the applicable variant. HQ AMC is collaborating with AFRC and ANG units to provide funding in the out years to retrofit their respective units.

This funding request will support diminishing manufacturing sources and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

This project contains procurement funding for related non-recurring engineering efforts, studies and risk reduction activities.

This project contains procurement funding for Program Management Administration (PMA) activities.

The number of kits procured is based on aircraft installations and available funding.

The ADS-B Out and Mode V IFF capability was accelerated ahead of the complete Block 8.1 mod in order to meet the Jan 2020 mandate and is included in this document.

This program includes costs for the following C-130J aircraft variants: C-130J stretch aircraft, C-130J short aircraft, WC-130J aircraft, HC-130J aircraft, and EC-130J aircraft.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to fielding actions such as kit buys, installation and support equipment.

The spares for the Block 8.1 program are on the "Other Government Cost" line on this P3A.

This program includes cost for a SIL stand up as the DSOR states BU 7.0/8.1 software maintenance will be performed organically at WR-ALC.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods	<b>Modification Number / Title:</b> 5222 / BLOCK 8.1
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

The first combined Block 7.0/8.1 mod was delivered 1 Dec 2020.

Milestone/Development Status

Successful full rate production decision 1 Oct 2019.

BU 8.1 operational testing occurred 9 Jul 18 to 28 Sep 18 with no reported CAT 1 deficiencies, formal out brief provided to AMC 22 Jul 19.

An adversarial assessment was performed second quarter FY19; no new risks were identified. Full rate production decision approval - 1 Oct 19.

	Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	90.979	115.790	87.130	-	87.130
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>90.979</b>	<b>115.790</b>	<b>87.130</b>	<b>0.000</b>	<b>87.130</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods		<b>Modification Number / Title:</b> 5222 / BLOCK 8.1	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401132F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0401132F	- / 28.654	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 2: ADS-B Out</b>						
A Kits						
Recurring						
ADS-B Out:INSTALL KITS Group A (Active)	242 / 25.893	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 25.893	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
ADS-B Out:EQUIPMENT Group B (Active)	242 / 38.163	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 38.163	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: ADS-B Out</i>	- / 64.056	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 2 of 2: Block 81 LM Kit</b>						
A Kits						
Recurring						
Block 81 LM Kit:INSTALL KITS Group A (Active)	46 / 44.020	6 / 5.100	13 / 11.100	16 / 13.600	- / -	16 / 13.600
<i>Subtotal: Recurring</i>	- / 44.020	- / 5.100	- / 11.100	- / 13.600	- / -	- / 13.600
B Kits						
Recurring						
Block 81 LM Kit:EQUIPMENT Group B (Active)	46 / 70.557	6 / 9.800	13 / 27.300	16 / 27.700	- / -	16 / 27.700
<i>Subtotal: Recurring</i>	- / 70.557	- / 9.800	- / 27.300	- / 27.700	- / -	- / 27.700
<i>Subtotal: Block 81 LM Kit</i>	- / 114.577	- / 14.900	- / 38.400	- / 41.300	- / -	- / 41.300
<i>Subtotal: Procurement, All Modification Items</i>	- / 178.633	- / 14.900	- / 38.400	- / 41.300	- / -	- / 41.300
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 39.496	- / -	- / -	- / -	- / -	- / -
OTHER GOVT	- / 147.676	- / 25.863	- / 14.552	- / 1.637	- / -	- / 1.637
Data	- / 2.583	- / 2.800	- / 1.800	- / 2.300	- / -	- / 2.300
GFP	- / 8.300	- / 3.900	- / 8.800	- / 4.100	- / -	- / 4.100
SIM/TRAINER	- / 13.600	- / 2.600	- / 20.600	- / 5.500	- / -	- / 5.500
SUPPORT-EQUIP	- / -	- / -	- / 2.100	- / 0.900	- / -	- / 0.900
ICS-Labor	- / -	- / 8.400	- / 17.480	- / 7.800	- / -	- / 7.800
ICS-Material	- / -	- / 0.440	- / 0.700	- / 1.185	- / -	- / 1.185



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods		<b>Modification Number / Title:</b> 5222 / BLOCK 8.1	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0401132F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
PMA - Other Gov't Costs	- / 9.356	- / 3.300	- / 8.350	- / 8.100	- / -	- / 8.100
<i>Subtotal: Support</i>	<i>- / 121.011</i>	<i>- / 47.303</i>	<i>- / 64.382</i>	<i>- / 31.522</i>	<i>- / -</i>	<i>- / 31.522</i>
<b>Installation</b>						
<b>Modification Item 1 of 2:</b> ADS-B Out	176 / 6.500	68 / 1.000	- / -	- / -	- / -	- / -
<b>Modification Item 2 of 2:</b> Block 81 LM Kit	9 / 23.581	14 / 27.776	12 / 13.008	14 / 14.308	- / -	14 / 14.308
<i>Subtotal: Installation</i>	<i>185 / 30.081</i>	<i>82 / 28.776</i>	<i>12 / 13.008</i>	<i>14 / 14.308</i>	<i>- / -</i>	<i>14 / 14.308</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>329.725</b>	<b>90.979</b>	<b>115.790</b>	<b>87.130</b>	<b>0.000</b>	<b>87.130</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods	<b>Modification Number / Title:</b> 5222 / BLOCK 8.1
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** ADS-B Out

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Marietta GA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 7

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	176 / 6.500	68 / 1.000	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	176 / 6.500	68 / 1.000	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020	FY 2021	FY 2022											
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
In	176	34	34	-	-	-	-	-	-	-	-	-	-	-
Out	176	34	34	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods	<b>Modification Number / Title:</b> 5222 / BLOCK 8.1

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** Block 81 LM Kit

**Manufacturer Information**

Manufacturer Name: Lockheed Martin		Manufacturer Location: Marietta GA/Greenville SC	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 20	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Nov 2019	Nov 2020	Nov 2021
Delivery Dates	Jul 2021	Jul 2022	Jul 2023

**Installation Information**

**Method of Implementation:** Depot

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9 / 23.581	14 / 27.776	12 / 13.008	11 / 11.242	- / -	11 / 11.242
FY 2020	- / -	- / -	- / -	3 / 3.066	- / -	3 / 3.066
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>9 / 23.581</b>	<b>14 / 27.776</b>	<b>12 / 13.008</b>	<b>14 / 14.308</b>	<b>- / -</b>	<b>14 / 14.308</b>

**Installation Schedule**

	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	9	3	4	3	4	3	3	3	3	3	4	3	4
Out	9	3	4	3	4	3	3	3	3	3	4	3	4

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods	<b>Modification Number / Title:</b> 8646 / C-130J Center Wing Replacement

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	117.064	25.683	13.394	23.254	0.000	23.254
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	117.064	25.683	13.394	23.254	0.000	23.254
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>117.064</b>	<b>25.683</b>	<b>13.394</b>	<b>23.254</b>	<b>0.000</b>	<b>23.254</b>

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

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

**Description:**

This program replaces the Center Wing Box (CWB) on C-130J aircraft with an extended service life (ESL) center wing. The ESL wing has been the standard production wing since Nov 2009. The first 77 C-130Js were built with the legacy C-130H center wing. The legacy wing has a life of 38,500 equivalent flying hours (EFH) before flight restrictions are imposed. The severity of the flight environment dictates how rapidly a wing needs to be replaced. The planes at the C-130J schoolhouse require replacement first, as virtually all of their flight hours are tactical. Validated Requirements Document: AF IMT 1067 (Modification Proposal) AMC-11-115, dated 19 Sep 11.

This project contains procurement funding for studies and risk reduction activities

Milestone/Development Status

N/A

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	25.683	13.394	23.254	-	23.254
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	25.683	13.394	23.254	0.000	23.254

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods			<b>Modification Number / Title:</b> 8646 / C-130J Center Wing Replacement	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> C-130J		<b>Modification Type:</b> Service Life Extension			<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Install Kit C-130J Contract 1 Group A</i>							
A Kits							
Recurring							
Install Kit C-130J Contract 1 Group A:INSTALL KITS Group A (Active)	15 / 59.433	4 / 16.249	3 / 12.893	2 / 9.670	- / -	2 / 9.670	
Install Kit C-130J Contract 1 Group A:INSTALL KITS Group A (Reserve)	1 / 4.330	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 63.763	- / 16.249	- / 12.893	- / 9.670	- / -	- / 9.670	
<i>Subtotal: Install Kit C-130J Contract 1 Group A</i>	- / 63.763	- / 16.249	- / 12.893	- / 9.670	- / -	- / 9.670	
<i>Subtotal: Procurement, All Modification Items</i>	- / 63.763	- / 16.249	- / 12.893	- / 9.670	- / -	- / 9.670	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 8.240	- / -	- / -	- / -	- / -	- / -	
Change Orders	- / 0.125	- / -	- / -	- / 0.454	- / -	- / 0.454	
Data	- / 1.382	- / -	- / -	- / -	- / -	- / -	
OCO INSTALLATIONS	- / 0.004	- / -	- / -	- / -	- / -	- / -	
PMA - Contractor Services	- / 2.906	- / 0.494	- / 0.465	- / 0.473	- / -	- / 0.473	
PMA - Other Gov't Costs	- / 0.051	- / 0.035	- / 0.036	- / 0.036	- / -	- / 0.036	
<i>Subtotal: Support</i>	- / 12.708	- / 0.529	- / 0.501	- / 0.963	- / -	- / 0.963	
<b>Installation</b>							
<i>Modification Item 1 of 1: Install Kit C-130J Contract 1 Group A</i>							
<i>Subtotal: Installation</i>	10 / 40.593	3 / 8.905	2 / 0.000	4 / 12.621	- / -	4 / 12.621	
<i>Total</i>	10 / 40.593	3 / 8.905	2 / -	4 / 12.621	- / -	4 / 12.621	
<b>Total Cost (Procurement + Support + Installation)</b>							
	117.064	25.683	13.394	23.254	0.000	23.254	

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C1300J / C-130J Mods	<b>Modification Number / Title:</b> 8646 / C-130J Center Wing Replacement
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Install Kit C-130J Contract 1 Group A

**Manufacturer Information**

Manufacturer Name: Lockheed Martin Aero		Manufacturer Location: Marietta GA	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 27	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Apr 2022	Apr 2023	Apr 2024

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	10 / 40.593	3 / 8.905	2 / 0.000	1 / 3.250	- / -	1 / 3.250
FY 2020	- / -	- / -	- / -	3 / 9.371	- / -	3 / 9.371
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	10 / 40.593	3 / 8.905	2 / 0.000	4 / 12.621	- / -	4 / 12.621

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	10	1	1	1	-	-	1	1	-	1	1	1	1
Out	6	-	1	-	1	1	1	2	1	-	1	1	-

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> C13500 / C-135
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0401218F	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	372.964	113.351	82.350	61.376	-	61.376	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	372.964	113.351	82.350	61.376	-	61.376	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>372.964</b>	<b>113.351</b>	<b>82.350</b>	<b>61.376</b>	<b>-</b>	<b>61.376</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

The C/KC-135 is a four engine aircraft used for long range cargo and passenger airlift and to support theater commanders. The C/KC-135 provides air refueling through either the refueling boom or drogue. As a cargo aircraft, the C/KC-135 can carry six standard 463-L pallets. There are 399 aircraft (396 KCs, 3 special purpose) in the C/KC-135 inventory. The average age is 59 years, with 38 years of service life remaining. The C/KC-135 has a retirement strategy through its projected service life of 2060.

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

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit is contained in PE 0401218F.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	77.011	34.215	20.030	-	20.030	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.036	33.864	27.425	-	27.425	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.304	14.271	13.921	-	13.921	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>113.351</b>	<b>82.350</b>	<b>61.376</b>	<b>-</b>	<b>61.376</b>	<b>-</b>	<b>-</b>	<b>-</b>

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
C13500 / C-135

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0401218F **Other Related Program Elements:** N/A

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	9818 / VOR/ILS ANTENNAE (Capability Improvement)				- / 9.285	- / 0.001	- / 0.001	- / 0.001	- / -	- / 0.001
P-40a***	9824 / ADS-B (Capability Improvement)				- / 14.019	- / -	- / -	- / -	- / -	- / -
P-40a***	9827 / KC-135 AERO-I SATCOM replacement (Reliability & Maintainability)				- / 0.000	- / 28.581	- / 16.274	- / 1.782	- / -	- / 1.782
P-40a***	9828 / Real Time in the Cockpit (RTIC) (Capability Improvement)				- / 26.200	- / 18.200	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a***	99999A / LOW COST SAFETY MODIFICATIONS (Capability Improvement)				- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025
P-40a***	99999X / Low Cost Modifications (Capability Improvement)				- / 13.479	- / 0.995	- / 1.995	- / 1.995	- / -	- / 1.995
P-3a	8653 / BLOCK 45 (Capability Improvement)			A	- / 303.592	- / 47.617	- / 60.185	- / 48.794	- / 0.000	- / 48.794
P-3a	9826 / Rudder Position Indicator (RPI) (Capability Improvement)			B	- / 6.364	- / 17.932	- / 3.870	- / 8.779	- / 0.000	- / 8.779
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 372.964</b>	<b>- / 113.351</b>	<b>- / 82.350</b>	<b>- / 61.376</b>	<b>- / -</b>	<b>- / 61.376</b>

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

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

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

**Justification:**  
FY 2022 primary efforts include: KC-135 AERO-I SATCOM, Block 45, Rutter Position Indicator (RPI), and Low Cost Modifications.



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13500 / C-135	<b>Modification Number / Title:</b> 8653 / BLOCK 45

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	303.592	47.617	60.185	48.794	0.000	48.794
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	303.592	47.617	60.185	48.794	0.000	48.794
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>303.592</b>	<b>47.617</b>	<b>60.185</b>	<b>48.794</b>	<b>0.000</b>	<b>48.794</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Block 45 program replaces legacy parts that are difficult to maintain, driving high sustainment costs, failing at high rates, and are no longer procurable. The modification includes a new Digital Flight Director (DFD), Digital Radio Altimeter (RA), Digital Autopilot (AP) and Electronic Engine Instrument Displays (EEID). Block 45 requirements are outlined in the Capability Production Document for C/KC-135 Communications, Navigation, and Surveillance / Air Traffic Management (CNS/ATM), dated 17 May 12. Program of record: 399 C/KC-135 aircraft, 19 pilot simulators and 5 cockpit simulators with Block 45. The Block 45 program's associated Research Development Test and Evaluation funding (PE 0401218F) modified two prototype aircraft. The remaining 397 aircraft will be funded with APAF.

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

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

**Milestone/Development Status**

Developmental Test & Evaluation completed March 2013. Milestone C approval received 25 July 2013. Currently in Full Rate Production.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	-	-	-	-	-
Quantity	-	-	-	-	-
Total Obligation Authority	13.709	19.839	9.767	-	9.767
AFNG	-	-	-	-	-
Quantity	-	-	-	-	-
Total Obligation Authority	24.279	27.841	25.717	-	25.717
AFR	-	-	-	-	-
Quantity	-	-	-	-	-
Total Obligation Authority	9.629	12.505	13.310	-	13.310
<b>Total:</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>47.617</b>	<b>60.185</b>	<b>48.794</b>	<b>0.000</b>	<b>48.794</b>
<b>Total Obligation Authority</b>	<b>47.617</b>	<b>60.185</b>	<b>48.794</b>	<b>0.000</b>	<b>48.794</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C13500 / C-135			<b>Modification Number / Title:</b> 8653 / BLOCK 45	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> KC-135		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Block 45</i>							
A Kits							
Recurring							
Block 45:INSTALL KITS Group A (Active)	74 / 6.741	11 / 0.796	5 / 0.362	9 / 0.640	- / -	9 / 0.640	
Block 45:INSTALL KITS Group A (Guard)	81 / 6.500	20 / 1.447	22 / 1.593	19 / 1.310	- / -	19 / 1.310	
Block 45:INSTALL KITS Group A (Reserve)	37 / 2.794	7 / 0.507	11 / 0.796	10 / 0.724	- / -	10 / 0.724	
<i>Subtotal: Recurring</i>	- / 16.035	- / 2.750	- / 2.751	- / 2.674	- / -	- / 2.674	
B Kits							
Recurring							
Block 45:EQUIPMENT Group B (Active)	78 / 59.344	11 / 8.411	5 / 3.823	9 / 6.882	- / -	9 / 6.882	
Block 45:EQUIPMENT Group B (Guard)	79 / 55.528	20 / 15.293	22 / 16.823	19 / 14.529	- / -	19 / 14.529	
Block 45:EQUIPMENT Group B (Reserve)	35 / 26.782	7 / 5.352	11 / 8.411	10 / 7.647	- / -	10 / 7.647	
<i>Subtotal: Recurring</i>	- / 141.654	- / 29.056	- / 29.057	- / 29.058	- / -	- / 29.058	
<i>Subtotal: Block 45</i>	- / 157.689	- / 31.806	- / 31.808	- / 31.732	- / -	- / 31.732	
<i>Subtotal: Procurement, All Modification Items</i>	- / 157.689	- / 31.806	- / 31.808	- / 31.732	- / -	- / 31.732	
<b>Support (All Modification Items)</b>							
Change Orders	- / 8.002	- / 0.000	- / -	- / -	- / -	- / -	
Data	- / 1.295	- / -	- / -	- / -	- / -	- / -	
SIM/TRAINER	17 / 33.321	0 / 0.200	- / 2.500	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 0.972	- / -	- / 1.000	- / -	- / -	- / -	
OTHER GOVT	- / 31.359	- / 10.600	- / 14.771	- / -	- / -	- / -	
PMA - Contractor Services	- / 3.656	- / 1.500	- / 1.000	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / 0.497	- / 0.362	- / 1.200	- / -	- / -	- / -	
<i>Subtotal: Support</i>	17 / 79.102	0 / 2.662	- / 10.471	- / -	- / -	- / -	
<b>Installation</b>							
<i>Modification Item 1 of 1: Block 45</i>	156 / 66.801	28 / 13.149	38 / 17.906	38 / 17.062	- / -	38 / 17.062	
<i>Subtotal: Installation</i>	156 / 66.801	28 / 13.149	38 / 17.906	38 / 17.062	- / -	38 / 17.062	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>303.592</b>	<b>47.617</b>	<b>60.185</b>	<b>48.794</b>	<b>0.000</b>	<b>48.794</b>	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13500 / C-135	<b>Modification Number / Title:</b> 8653 / BLOCK 45
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Block 45

**Manufacturer Information**

Manufacturer Name: Rockwell Collins Manufacturer Location: Cedar Rapids, IA

Administrative Leadtime (in Months): 3 Production Leadtime (in Months): 8

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Jan 2020	Jan 2021	Jan 2022
Delivery Dates	Sep 2020	Sep 2021	Sep 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	15 / 8.434	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	15 / 8.434	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	15	-	-	-	-	-	-	-	-	-	-	-	-
Out	15	-	-	-	-	-	-	-	-	-	-	-	-

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	141 / 58.367	26 / 12.251	- / -	- / -	- / -	- / -
FY 2020	- / -	2 / 0.898	36 / 16.964	- / -	- / -	- / -
FY 2021	- / -	- / -	2 / 0.942	36 / 16.164	- / -	36 / 16.164
FY 2022	- / -	- / -	- / -	2 / 0.898	- / -	2 / 0.898
<b>Total</b>	141 / 58.367	28 / 13.149	38 / 17.906	38 / 17.062	- / -	38 / 17.062

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13500 / C-135	<b>Modification Number / Title:</b> 8653 / BLOCK 45
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Block 45

**Installation Information**

**Method of Implementation:** Depot

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	141	9	4	5	10	9	10	9	10	9	10	9	10
Out	131	10	9	4	5	10	9	10	9	10	9	10	9

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> C13500 / C-135	<b>Modification Number / Title:</b> 9826 / Rudder Position Indicator (RPI)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	6.364	17.932	3.870	8.779	0.000	8.779
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	6.364	17.932	3.870	8.779	0.000	8.779
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>6.364</b>	<b>17.932</b>	<b>3.870</b>	<b>8.779</b>	<b>0.000</b>	<b>8.779</b>

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

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

**Description:**

The Rudder Position Indicator (RPI) addresses crew situational awareness for the actual rudder position. Currently, there are no means to determine actual rudder position within the cockpit. The program provides the actual and commanded rudder position and will visually identify differences to the crew via their Multi-Function Display (MFD). The RPI program of record is 359 C/KC-135 aircraft due to projected divestment plan.

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

Milestone/Development Status

Materiel Development Decision/Acquisition Strategy Panel Sep 18

Milestone-C Nov 19

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	15.525	1.939	6.543	-	6.543
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	1.732	1.448	1.640	-	1.640
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.675	0.483	0.596	-	0.596
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>17.932</b>	<b>3.870</b>	<b>8.779</b>	<b>0.000</b>	<b>8.779</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> C13500 / C-135		<b>Modification Number / Title:</b> 9826 / Rudder Position Indicator (RPI)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> KC-135		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b>		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: RPI</i>						
A Kits						
Recurring						
RPI:INSTALL KITS Group A (Active)	0 / 0.000	33 / 0.790	27 / 0.651	30 / 0.766	- / -	30 / 0.766
RPI:INSTALL KITS Group A (Guard)	0 / 0.000	36 / 0.862	30 / 0.723	33 / 0.842	- / -	33 / 0.842
RPI:INSTALL KITS Group A (Reserve)	0 / 0.000	14 / 0.336	10 / 0.241	12 / 0.306	- / -	12 / 0.306
<i>Subtotal: Recurring</i>	- / 0.000	- / 1.988	- / 1.615	- / 1.914	- / -	- / 1.914
B Kits						
Recurring						
RPI:EQUIPMENT Group B (Active)	- / -	33 / 0.798	27 / 0.653	30 / 0.725	- / -	30 / 0.725
RPI:EQUIPMENT Group B (Guard)	- / -	36 / 0.870	30 / 0.725	33 / 0.798	- / -	33 / 0.798
RPI:EQUIPMENT Group B (Reserve)	- / -	14 / 0.339	10 / 0.242	12 / 0.290	- / -	12 / 0.290
<i>Subtotal: Recurring</i>	- / -	- / 2.007	- / 1.620	- / 1.813	- / -	- / 1.813
<i>Subtotal: RPI</i>	- / 0.000	- / 3.995	- / 3.235	- / 3.727	- / -	- / 3.727
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 3.995	- / 3.235	- / 3.727	- / -	- / 3.727
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / 3.400	- / -	- / -	- / -	- / -
GROUP B: TOTAL NONRECURRING	- / -	- / 1.555	- / -	- / -	- / -	- / -
Change Orders	- / 0.250	- / 1.535	- / 0.001	- / 0.194	- / -	- / 0.194
Data	- / 0.140	- / -	- / 0.001	- / 0.000	- / -	- / 0.000
SIM/TRAINER	19 / 2.869	0 / 0.000	- / -	- / -	- / -	- / -
PMA - Contractor Services	- / 0.770	- / 0.500	- / 0.001	- / 0.150	- / -	- / 0.150
PMA - Other Gov't Costs	- / 1.135	- / 0.775	- / 0.001	- / 0.000	- / -	- / 0.000
OTHER GOVT	- / 1.200	- / 1.612	- / 0.631	- / 1.708	- / -	- / 1.708
<i>Subtotal: Support</i>	19 / 6.364	0 / 13.937	- / 0.635	- / 5.052	- / -	- / 5.052
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>6.364</b>	<b>17.932</b>	<b>3.870</b>	<b>8.779</b>	<b>0.000</b>	<b>8.779</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> C13500 / C-135	
<b>Modification Number / Title:</b> 9826 / Rudder Position Indicator (RPI)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> RPI			
<b>Manufacturer Information</b>			
Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime ( <i>in Months</i> ): 2		Production Leadtime ( <i>in Months</i> ): 9	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	Dec 2021
Delivery Dates	Sep 2020	Sep 2021	Sep 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 359	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0207253F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	500.973	110.539	180.983	195.098	-	195.098	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	500.973	110.539	180.983	195.098	-	195.098	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>500.973</b>	<b>110.539</b>	<b>180.983</b>	<b>195.098</b>	-	<b>195.098</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	10.805	10.985	65.624	-	65.624	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

COMPASS CALL is the Air Force's wide-area, standoff, Airborne Electronic Attack (AEA) Command and Control Warfare/Information Operations (C2W/IO) weapon system. The employment of this weapon system interrupts the adversary's use of the electronic battlespace and is a key active component in the information battlespace and prosecution of Overseas Contingency Operations (OCO). COMPASS CALL's sophisticated electronic attack system is capable of surgical denial and/or disruption of adversary Radio Frequency (RF) communications, radar and sensor systems. Procurement funds are required for modification kit production (hardware, firmware, and software), installation, certification and test on an EC-37B re-host platform in accordance with the Baseline upgrade cyclic schedule.

The current COMPASS CALL program of record as of second quarter FY2021 includes the following resources: ten (10) Primary Mission Aircraft Inventory (PMAI), Combat Support coded (CA) EC-130H aircraft, one (1) Backup Aircraft Inventory (BAI), Training coded (TF) TC-130H trainer aircraft, one (1) EC-130H Weapon System Trainer (WST, flight deck simulator), and two (2) COMPASS CALL Mission Crew Simulators (CCMCS). Four (4) EC-130H aircraft have been divested between FY2018 and FY2020. One (1) EC-130H will retire in 4Q FY2021. An additional two (2) EC-130H aircraft will retire in FY2022, the first in 1Q, the second in 2Q. Due to the age of the EC-130H fleet (average is 46 years) the re-hosting of the Prime Mission Equipment (PME) is crucial to ensuring the survival of this critical capability.

On 23 March 2016, a Doctrine, Organization, Training, materiel, Leadership & Education, Personnel, Facilities (DOTmLPF) Change Recommendation (DCR) was approved. This requirement drives the re-hosting of COMPASS CALL PME from the EC-130H to a modern, more cost-effective, survivable and operationally suitable commercial derivative aircraft which meets the range, speed, endurance and operating altitude needs of the combatant commands in an Anti-Access/Area Denial (A2AD) environment. As a result, in FY2017, the COMPASS CALL re-host program was initiated to begin the transition to the EC-37B platform. The re-hosted COMPASS CALL platform is based on a commercially-available modified G550 aircraft that already holds Federal Aviation Administration (FAA) Supplemental Type Certificates (STC) for airworthiness. The platform will undergo modifications to host COMPASS CALL's PME and antenna arrays and receive additional STCs and Military Type Certificates (MTC). The EC-37B aircraft utilize PME harvested from the MBL2 EC-130H aircraft and upgraded to the latest Baseline. The EC-37B program is highly concurrent with developmental and procurement activities occurring in parallel.

Transitioning to the re-host effort, the program of record has procured six (6) new commercial derivative aircraft to date. The first five (5) EC-37B aircraft procured in FY2017-FY2020 will be configured with Baseline 3 (BL3) PME. These aircraft will receive PME from legacy donor EC-130H aircraft, as well as new and updated PME. The sixth EC-37B aircraft procured in FY2021 will be the first Baseline 4 (BL4) configured aircraft. In FY2022, the Compass Call program has deferred procurement of the seventh EC-37B aircraft, associated installations, and PME kit buy and realigned the associated FY2022 funding elsewhere within the program. This decision was critical in order to maintain the aggressive BL4 development and fielding schedule as well as address deferred requirements that cannot be deferred further. These requirements include BL4 development activities, procurement of BL3 and BL4 support equipment for the PME and modified aircraft, procurement of the BL4 CCMCS, execution of change orders that have emerged as a result of concurrent design and production, modification of sixth EC-37B aircraft to a BL4 configuration and procurement of non-developmental hardware for lower-level BL4 integration activities.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0207253F
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>Procurement and installation of the PME modification kits onto the air vehicle is performed under line item CALL00/Modification Number 1003. Procurement of the air vehicles for re-host is performed under the Aircraft Procurement, Air Force appropriation, Budget Activity 04, Budget Sub Activity 05 under P-1 line item CALL00/COMPASS CALL.</p> <p>In FY2022, 20.353M was realigned to RDT&amp;E, AF, PE 0207253F to fund developmental activities associated with PME Upgrade. In FY2022, 75.817M was realigned from BA 04 to fund procurement of BL3 and BL4 support equipment for the PME and aircraft, procurement of the BL4 CCMCS, execution of change orders, modification of sixth EC-37B aircraft to a BL4 configuration and procurement of non-developmental hardware for lower-level BL4 integration activities.</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p> <p>Funding for this exhibit is contained in PE 0207253F.</p> <p>COMPASS CALL modification efforts include, but are not limited to, activities associated aircraft system integration, assembly, test and checkout; certification; non-developmental mission system upgrades, external communications upgrades, software integration and updates, systems engineering, test and evaluation, training, support equipment, and PMA. This activity also includes EC-37B aircraft and PME retrofits. Baseline upgrades and enhancements will also include necessary support equipment, training device/simulator modifications, test and test support activities (planning, integration). The simulators provide for the training and qualification of aircrew and ground personnel as well as address training obsolescence issues.</p> <p>Due to the rapidly changing threat environment encountered in overseas contingency operations, the acquisition program manager has the authority to redirect funding, as necessary, to meet currently slated and/or emerging Combatant Command requirements through the integration of Quick Reaction Capability (QRC) kits and other high-priority efforts.</p> <p>This modification supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.</p>		

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
CALL00 / Compass Call

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207253F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	1001 / COMPASS CALL (Capability Improvement)				- / 36.366	- / -	- / 11.300	- / -	- / -	- / -
P-3a	1003 / COMPASS CALL Baseline Modifications (Capability Improvement)		A		- / 464.607	- / 110.539	- / 169.683	- / 195.098	- / 0.000	- / 195.098
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 500.973</b>	<b>- / 110.539</b>	<b>- / 180.983</b>	<b>- / 195.098</b>	<b>- / -</b>	<b>- / 195.098</b>

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

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

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

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

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call	<b>Modification Number / Title:</b> 1003 / COMPASS CALL Baseline Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	464.607	110.539	169.683	195.098	0.000	195.098
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	464.607	110.539	169.683	195.098	0.000	195.098
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>464.607</b>	<b>110.539</b>	<b>169.683</b>	<b>195.098</b>	<b>0.000</b>	<b>195.098</b>

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

Initial Spares (\$ in Millions)	55.516	10.805	10.985	65.624	-	65.624
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

**Description:**

The COMPASS CALL capability is the USAF's premier wide-area coverage Airborne Electronic Attack (AEA) Offensive Counter Information (OCI) weapon system. In order to ensure continued tactical effectiveness, COMPASS CALL's Prime Mission Equipment (PME) must evolve to keep pace with emerging adversary developments in communications, radar, and sensor technology as well as the use of rapidly advancing commercial communications technology. To meet this challenge, the COMPASS CALL program employs an incremental Baseline upgrade acquisition strategy that puts capability into the warfighter's hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. Capabilities inserted into each Baseline are planned in advance, based on warfighter inputs. Executive Management Reviews are held to review and set the expectation for Baseline content as production nears. Procurement funds are required for modification kit production (hardware, firmware, and software, procurement of system integration lab components, installation, certification, and test) on a re-host platform in accordance with the Baseline upgrade cyclic schedule.

Re-hosting the EC-130H onto the EC-37B effort consists of the purchase of aircraft plus the reuse of legacy EC-130H PME hardware upgraded to the latest Baseline. The first re-host baseline will be Baseline 3 (BL3), and will be installed on the first five (5) aircraft. Aircraft #6 will be procured and modified to host BL4. Compass Call BL3 includes, but not limited to, the repackaging and integration of legacy EC-130H capabilities into the smaller, more capable EC-37B airframe. Such capabilities include the advanced counter radar countermeasures subsystem and the next generation Special Purpose Emitter Array (SPEAR) subsystem. The BL3 update includes, but is not limited to, updates to the mission system as well as the rehost to a new airframe that provides better aircraft performance and supportability. The BL4 upgrade includes, but is not limited to, an incremental upgrade to the low-band receive and transmit capability and implementation of open architecture to improve mission system flexibility, enable rapid capability integration, and address Diminishing Manufacturing Sources (DMS). The open architecture implementation on Compass Call is referred to as SWORD-A (System-Wide Open Reconfigurable Dynamic Architecture)

The FY2022 budget supports non-recurring engineering (NRE) to integrate the BL4 PME onto the aircraft; BL3 integration NRE; procurement and NRE for PME and aircraft support equipment; COMPASS CALL Mission Crew Simulator (CCMCS) upgrades and procurement; implementation of BL3 and BL4 weapon system change management occurring as a result of concurrency between PME and aircraft production, and program management administration (PMA) requirements.

Procurement activities within the financial plan associated with PME Group A and Group B Recurring Engineering (RE) includes procurement of Group A kits and Group B line replaceable units (LRUs). Group A is defined as the racks, harnesses and consoles that house PME LRUs as well as the cabling that interfaces PME with the aircraft. Group B is composed of individual militarily useable LRUs and associated cabling that process the signal environment and generate electronic attack signals in response. Due to cost increases across the Compass Call program from FY2017 - FY2021 leading to an accumulation of deferred program bills that were then compounded by program rephasing to support BL4 acceleration, the recurring costs for Group A and Group B RE have fluctuated in FY2020 and FY2021. Cost increases include those associated with aircraft installs and the recurring costs of a PME kit.

The following is an explanation for the fluctuations in Group A and Group B kit costs in FY2020 and FY2021:

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call	<b>Modification Number / Title:</b> 1003 / COMPASS CALL Baseline Modifications
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<p>- FY2020 Group A Recurring engineering: Due to Aircraft #5 installation cost increases and acceleration of BL4 integration NRE, the Compass Call program deferred procurement of the fifth EC-37B Group A kit to FY2021.</p> <p>- FY2020 Group B Recurring Engineering: As a result of recurring kit cost increases, a number of LRUs required for Aircraft #4 were deferred to FY2020 leading to Aircraft #5 LRUs being subsequently deferred to FY2021.</p> <p>- FY2021 Group A and Group B Recurring Engineering: All remaining Group B LRUs along with both Group A kits will be procured for both Aircraft #5 and Aircraft #6 and the program will be completely caught up on PME kit buys.</p> <p>In FY2022, the Compass Call program is deferring procurement of the seventh EC-37B PME kit. The funding originally budgeted for EC-37B Aircraft #7 Group A and Group B RE (PME Kit) will be used to fund procurement of PME and aircraft support equipment, implementation of change orders as well as integration and test activities for BL3.</p> <p>Support activities within the financial plan include PME Group A and Group B NRE, program management administration (PMA), support equipment, and simulator and trainer upgrades. Group A and Group B NRE activities include those associated with generating/implementing change orders, BL3 PME integration and test and NRE required to integrate the BL4 PME onto the aircraft. In FY2021 and FY2022, an increase in Group B NRE is observed because the Compass Call program procured non-developmental hardware to support the BL4 SIL and lower level integration activities. The material to be procured in FY2022 will be done so using funding realigned from BA 04 to BA 05 and is critical to maintain overall BL4 development and integration schedule.</p> <p>PMA includes funding for advisory and assistance services (A&amp;AS), travel, and other program administration requirements as needed. Due to FY2021 marks against BA 04, increased A&amp;AS support contractor requirements, an increase in this funding line is expected in FY2021 and beyond to align all PMA requirements to BA 05. As the program continues to grow and concurrently manage two (2) EC-37B configurations, PMA is expected to increase within BA 05 annually.</p> <p>Support equipment activities include those associated with procuring aircraft and PME support equipment and upgrading existing PME and aircraft support equipment required for test and fielding. This requirement will be funded using funding realigned from BA 04 as well as the Aircraft #7 PME kit as a result of the deferral of the procurement of Aircraft #7.</p> <p>Simulator and trainer activities include updates to the COMPASS CALL Mission Crew Simulator (CCMCS) to align with PME baseline upgrades, training materials and training events. The Compass Call program has only one simulator per fielded baseline. The BL1 CCMCS is being upgraded to the BL3 configuration and the MBL2 CCMCS is planned to be upgraded to the BL4 configuration starting in FY2022. Planned FY2021 activities included the completion of the CCMCS upgrades and NRE. In FY2021 however, the program office received a mark for \$15M against the BL4 CCMCS that delayed the start of NRE and procurement activities. In FY2022 following realignment of BA 04 funding to BA 05, BL3 training activities as well as the complete BL4 CCMCS modification to the MBL2 CCMCS will be procured to include NRE, material, and integration.</p> <p>Install activities within the financial plan include those associated with installing the Group A and Group B PME onto the aircraft and modifying the aircraft to a final EC-37B configuration. In FY2020, installation costs increased and are projected to remain increased in FY2022+. In addition, in FY2021 the program was marked, citing aircraft installation delays, preventing purchase of the install in FY2021 for Aircraft #6. As a result, in FY2022, the program will be procuring the installation for Aircraft #6. Funding originally allocated to EC-37B Aircraft #7 installation will be realigned to fund the Aircraft #6 installation.</p> <p>Funding for this exhibit is contained in PE 0207253F.</p> <p>Milestone/Development Status</p> <p>The COMPASS CALL weapon system is continuously improved using a rapid development and acquisition process supporting a Baseline upgrade strategy. User needs and technology opportunities are continuously reviewed. The Compass Call BL3 configuration will begin initial fielding in 2024. The Compass Call BL4 configuration completed Preliminary Design Review (PDR) in 2Q FY2021 and is planned to complete Critical Design Review (CDR) in 3Q FY2022.</p>		

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call			<b>Modification Number / Title:</b> 1003 / COMPASS CALL Baseline Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> EC-37B			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207253F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: COMPASS CALL MODS</i>							
A Kits							
Recurring							
COMPASS CALL MODS:INSTALL KITS Group A (Active)	4 / 46.349	- / -	2 / 18.638	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 46.349	- / -	- / 18.638	- / -	- / -	- / -	
B Kits							
Recurring							
COMPASS CALL MODS:EQUIPMENT Group B (Active)	4 / 163.170	1 / 27.916	1 / 46.975	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 163.170	- / 27.916	- / 46.975	- / -	- / -	- / -	
<i>Subtotal: COMPASS CALL MODS</i>	- / 209.519	- / 27.916	- / 65.613	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 209.519	- / 27.916	- / 65.613	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 72.808	- / 18.583	- / 15.717	- / 24.545	- / -	- / 24.545	
GROUP B: TOTAL NONRECURRING	- / 108.941	- / 21.856	- / 55.598	- / 59.249	- / -	- / 59.249	
PMA - Other Gov't Costs	- / 1.908	- / 2.687	- / 2.920	- / 4.920	- / -	- / 4.920	
SUPPORT-EQUIP	- / 19.892	- / 11.084	- / 19.008	- / 37.103	- / -	- / 37.103	
SIM/TRAINER	1 / 10.994	- / 13.372	- / 10.827	1 / 39.871	- / -	1 / 39.871	
<i>Subtotal: Support</i>	1 / 214.543	- / 57.582	- / 104.070	1 / 165.688	- / -	1 / 165.688	
<b>Installation</b>							
<i>Modification Item 1 of 1: COMPASS CALL MODS</i>							
<i>Subtotal: Installation</i>	4 / 40.545	0 / 25.041	1 / 0.000	1 / 29.410	- / -	1 / 29.410	
<i>Subtotal: Installation</i>	4 / 40.545	- / 25.041	1 / -	1 / 29.410	- / -	1 / 29.410	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>464.607</b>	<b>110.539</b>	<b>169.683</b>	<b>195.098</b>	<b>0.000</b>	<b>195.098</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> CALL00 / Compass Call	<b>Modification Number / Title:</b> 1003 / COMPASS CALL Baseline Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** COMPASS CALL MODS

**Manufacturer Information**

Manufacturer Name: L-3 Harris		Manufacturer Location: Waco, TX	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 9	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Dec 2020	
Delivery Dates		Sep 2021	

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 40.545	0 / 25.041	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	1 / 0.000	1 / 29.410	- / -	1 / 29.410
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 40.545	0 / 25.041	1 / 0.000	1 / 29.410	- / -	1 / 29.410

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> CFIN00 / combat flight inspection - CFIN
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.994	0.508	0.000	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.994	0.508	0.000	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>0.994</b>	<b>0.508</b>	<b>0.000</b>	<b>0.000</b>	-	<b>0.000</b>	-	-	-	-	-	-

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

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

**Description:**

Funds are required to procure and sustain unique military equipment on three FAA owned, Air Force operated, Canadair Challenger flight inspection aircraft to provide the DoD Combat Flight Inspection (CFIN) capability. CFIN is an Air Force combat capability to validate and certify airfield instrument approach and landing equipment, and associated instrument procedures, are safe and meet specifications before all-weather combat flight operations can begin. The CFIN capability is provided by three FAA Canadair Challenger aircraft modified with unique military equipment required for the CFIN mission, including secure anti-jam radios, military Identification Friend or Foe Mode IV and V transponders, and survivability equipment.

This funding may include emerging modification requirements to support PMA, A&AS, equipment and other government costs.

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

**Justification:**

No FY 2022 funding requested.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0305207F	<b>Other Related Program Elements:</b> 0305207F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	982.044	227.673	191.332	207.596	-	207.596	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	982.044	227.673	191.332	207.596	-	207.596	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>982.044</b>	<b>227.673</b>	<b>191.332</b>	<b>207.596</b>	-	<b>207.596</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	83.572	51.282	51.305	-	51.305	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The USAF's Manned Reconnaissance Systems program includes seventeen (17) RC-135V/W RIVET JOINT, three (3) RC-135S COBRA BALL and two (2) RC-135U COMBAT SENT mission aircraft performing Air Combat Command (ACC) operational missions. The RC-135V/W RIVET JOINT is the majority variant that drives the Baseline integration and modification upgrade strategy for the entire RC-135 fleet. Therefore, a significant amount of the modification budget is directly related to RIVET JOINT weapon system baseline strategy enhancements which subsequently transfer into the follow-on baseline strategy enhancements for the COBRA BALL and COMBAT SENT weapon systems.

RC-135 Viability Assessments in 2008, 2102, and 2019 reported that despite the fleet average airframe age (57 years) and accumulated flight hours (42,740) as of the end of FY 2018, the RC-135 should be able to continue to meet the user's needs by performing intended operations through at least 2050. Viability was assessed based on underlying analyses of reliability, maintainability, performance, corrosion, fatigue, architectural stability, safety and availability. The Viability Assessment also summarized that the RC-135 fleet has experienced significant improvements in reliability, maintainability and availability since FY 2001. The Program Manager attributes these improvements directly to the 645th Aeronautical Systems Group's (645 AESG) Baseline integration and spiral modification upgrade strategy and synergies gained with long-standing relationships with the RC-135 industry partners.

The RIVET JOINT Baseline integration efforts of Baselines 12 and 13 which started in early FY19, address the 2012 RC-135 Multi-Attribute Utility Assessment (MUA) that detailed operational effectiveness, cost and program analyses of the alternative weapon system configurations. The MUA determined that retaining and sustaining the RC-135V/W airframe offers the highest assessed weapons system utility (measured as a benefit of cost-to-risk ratio) over the 25-year assessment period.

Funding for this exhibit is contained in PE 0305207F.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
DARP01 / RC-135

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0305207F **Other Related Program Elements:** 0305207F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	4266 / CONSTANT PHOENIX (Capability Improvement)				- / 208.290	- / 7.937	- / -	- / -	- / -	- / -
P-3a	2504 / COBRA BALL (Capability Improvement)		A		- / 26.204	- / 12.177	- / 12.414	- / 12.656	- / 0.000	- / 12.656
P-3a	4263 / RIVET JOINT (Capability Improvement)		A		- / 700.594	- / 197.574	- / 168.952	- / 184.749	- / 0.000	- / 184.749
P-3a	4265 / COMBAT SENT (Capability Improvement)		A		- / 46.956	- / 9.985	- / 9.966	- / 10.191	- / 0.000	- / 10.191
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 982.044</b>	<b>- / 227.673</b>	<b>- / 191.332</b>	<b>- / 207.596</b>	<b>- / -</b>	<b>- / 207.596</b>

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

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

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

**Justification:**  
FY22 procurement funding will concentrate on three major efforts: (1) continuing the conversion of RIVET JOINT Baseline 11 aircraft to Baseline 13 configuration, (2) continue the enhancement of RIVET JOINT Baseline 12, and (3) continue the autopilot upgrade. Ten RIVET JOINT aircraft are projected to receive the Baseline 13 configuration. During this same period, COMBAT SENT will complete integration and testing of Baseline 6 with the COBRA BALL continuing integration and testing of Baseline 7. The COMBAT SENT and COBRA BALL baselines closely align with RIVET JOINT Baseline 12. Additionally, FY22 procurement will ensure integration and fielding updates to the RC-135 ground systems, which include RIVET JOINT Ground Data Processing Systems (GDPS), Distributed Mission Shelters (DMS), Mission Crew Training Systems (MCTS), Airborne Capabilities Extension System (ACES) and Operational Flight Trainers (OFT). The ground systems are upgraded to remain consistent with the fielded aircraft configurations to allow for training and qualification of the aircrew and maintenance personnel assigned, plus verification and certification of software builds that are continuously modified to address the dynamic mission requirements of these weapons systems. Due to higher USAF priorities, \$13.842M of FY21 procurement funding was re-phased into FY22 and FY23 under RIVET JOINT.

Due to the changing threat and rapidly evolving electromagnetic combat environment encountered during the RC-135's prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current and emerging Combatant Commander and/or Intelligence Community requirements to better meet the war fighting objectives.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135	<b>Modification Number / Title:</b> 2504 / COBRA BALL

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	26.204	12.177	12.414	12.656	0.000	12.656
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	26.204	12.177	12.414	12.656	0.000	12.656
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>26.204</b>	<b>12.177</b>	<b>12.414</b>	<b>12.656</b>	<b>0.000</b>	<b>12.656</b>

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

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

**Description:**

FY22 procurement funding acquires and installs various upgrades and enhancement modifications for the three (3) RC-135S COBRA BALL aircraft performing Air Combat Command (ACC) directed operational missions. Due to the rapidly changing global threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135S COBRA BALL program--Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems is managed in accordance with an incremental baseline upgrade acquisition strategy in order to maintain collection parity with evolving and emerging adversarial weapons systems utilized by state and non-state actors. The 645 AESG Baseline upgrade strategy requires purchase agreements for long-lead items that take approximately 10 to 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted for purchase in the first year of the procurement funding cycle and are acquired and installed in the subsequent year. This acquisition strategy has been successful in maintaining critical combat capability in the Intelligence, Surveillance, and Reconnaissance (ISR) arena over the last 50 years.

FY22 procurement funding efforts will concentrate on the initiatives pertaining to completing the development, integration and fielding COBRA BALL Baseline 7 enhancements. Baseline 7 subsystem upgrades consist of, but are not limited to: Foreign Instrumentation Signals Intelligence (FISINT) Direction Finding and Digital Data Recording, Digital Search, Target Discrimination via SATCOM, and the integration of the RIVET JOINT Baseline 12 communications intelligence (COMINT) suite.

Funding for this exhibit contained in PE 0305207F.

**Milestone/Development Status**

FY22 procurement funding is associated with the acquisition, integration, and fielding of Baseline 7, as well as logistical support efforts for the Baseline 6 configuration upgrades and enhancements on the three (3) RC-135S COBRA BALL aircraft, their sensor systems, and associated ground support systems. These upgrades are attributed to the research and development efforts initiated in FY 2018 and FY 2019. These initiatives formed the basis for the RC-135S COBRA BALL fleet modification strategy.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135		<b>Modification Number / Title:</b> 2504 / COBRA BALL	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RC-135S, TC-135W		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305207F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Baseline Upgrade</i>						
A Kits						
Recurring						
Baseline Upgrade:INSTALL KITS Group A (Active)	4 / 4.677	1 / 3.044	1 / 3.127	1 / 3.190	- / -	1 / 3.190
<i>Subtotal: Recurring</i>	- / 4.677	- / 3.044	- / 3.127	- / 3.190	- / -	- / 3.190
B Kits						
Recurring						
Baseline Upgrade:EQUIPMENT Group B (Active)	4 / 6.882	1 / 5.267	1 / 5.411	1 / 5.520	- / -	1 / 5.520
<i>Subtotal: Recurring</i>	- / 6.882	- / 5.267	- / 5.411	- / 5.520	- / -	- / 5.520
<i>Subtotal: Baseline Upgrade</i>	- / 11.559	- / 8.311	- / 8.538	- / 8.710	- / -	- / 8.710
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.559	- / 8.311	- / 8.538	- / 8.710	- / -	- / 8.710
<b>Installation</b>						
<i>Modification Item 1 of 1: Baseline Upgrade</i>						
<i>Subtotal: Installation</i>	4 / 14.645	1 / 3.866	1 / 3.876	1 / 3.946	- / -	1 / 3.946
<i>Subtotal: Installation</i>	4 / 14.645	1 / 3.866	1 / 3.876	1 / 3.946	- / -	1 / 3.946
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>26.204</b>	<b>12.177</b>	<b>12.414</b>	<b>12.656</b>	<b>0.000</b>	<b>12.656</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135	<b>Modification Number / Title:</b> 2504 / COBRA BALL

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Baseline Upgrade

**Manufacturer Information**

Manufacturer Name: L-3Harris Technologies		Manufacturer Location: Greenville, TX	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 6	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	Dec 2021
Delivery Dates	Jun 2020	Jun 2021	Jun 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 14.645	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	1 / 3.866	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	1 / 3.876	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	1 / 3.946	- / -	1 / 3.946
<b>Total</b>	<b>4 / 14.645</b>	<b>1 / 3.866</b>	<b>1 / 3.876</b>	<b>1 / 3.946</b>	<b>- / -</b>	<b>1 / 3.946</b>

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135	<b>Modification Number / Title:</b> 4263 / RIVET JOINT

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	700.594	197.574	168.952	184.749	0.000	184.749
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	700.594	197.574	168.952	184.749	0.000	184.749
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>700.594</b>	<b>197.574</b>	<b>168.952</b>	<b>184.749</b>	<b>0.000</b>	<b>184.749</b>

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

Initial Spares ( <i>\$ in Millions</i> )	95.135	83.572	51.282	51.305	-	51.305
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

FY22 procurement funding acquires and installs various upgrade and enhancement modifications for the seventeen (17) RC-135V/W RIVET JOINT aircraft performing Air Combat Command (ACC) directed operational missions. The enhancements will focus on improving the RC-135's ability to compete and deter in the near-peer environment across the range of military operations. Due to the rapidly changing global threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements. Due to higher Air Force priorities \$13.842M of FY21 procurement funding was re-phased into FY22 and FY23.

The Operational Requirements Document (ORD) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135V/W RIVET JOINT program -- Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems is managed in accordance with an incremental baseline upgrade acquisition strategy in order to maintain collection parity with an evolving threat environment. The 645 AESG's Baseline upgrade strategy requires purchase agreements for long lead items that take approximately 10 to 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted and purchased in the first year of the procurement funding cycle and are acquired and installed in the next year. This acquisition strategy has been successful in maintaining critical combat capability in the Intelligence, Surveillance and Reconnaissance (ISR) arena over the last 50 years.

FY22 procurement funding will sustain fielded RIVET JOINT Baseline 12 configured aircraft but will also concentrate on fielding Baseline 13 aircraft. Baseline 13 subsystem upgrades consist of, but are not limited to: High Frequency (HF) search, Integral HF Direction Finding, Reconfigurable Collection Environment (RCE) Beamformer, RCE DF/Geolocation, Integral Wideband Recorder, Pulse Train processing, search-thru-jammer hardening, moving emitter geolocation and moving target fusion, improved wide band communication links. The program will continue Baseline 14 engineering and begin Baseline 14 integration and testing.

Funding for this exhibit contained in PE 0305207F.

**Milestone/Development Status**

FY22 procurement funding is associated with acquisition, integration, fielding and logistical support efforts for the Baseline 13 configuration upgrades/enhancements on the RC-135V/W RIVET JOINT aircraft, sensor systems, and associated ground support systems. These upgrades are attributed to the research and development efforts initiated in FY17 and FY18. These initiatives formed the basis for the RC-135V/W RIVET JOINT fleet modification strategy.



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135		<b>Modification Number / Title:</b> 4263 / RIVET JOINT	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RC-135V, RC-135W, TC-135W		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305207F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Baseline Upgrade (2)</i>						
A Kits						
Recurring						
Baseline Upgrade:INSTALL KITS Group A (Active)	16 / 455.040	4 / 135.622	4 / 105.958	4 / 120.355	- / -	4 / 120.355
<i>Subtotal: Recurring</i>	- / 455.040	- / 135.622	- / 105.958	- / 120.355	- / -	- / 120.355
B Kits						
Recurring						
Baseline Upgrade:EQUIPMENT Group B (Active)	16 / 50.695	4 / 13.164	4 / 13.401	4 / 13.743	- / -	4 / 13.743
<i>Subtotal: Recurring</i>	- / 50.695	- / 13.164	- / 13.401	- / 13.743	- / -	- / 13.743
<i>Subtotal: Baseline Upgrade (2)</i>	- / 505.735	- / 148.786	- / 119.359	- / 134.098	- / -	- / 134.098
<i>Subtotal: Procurement, All Modification Items</i>	- / 505.735	- / 148.786	- / 119.359	- / 134.098	- / -	- / 134.098
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / 5.262	- / 1.300	- / 1.313	- / 1.468	- / -	- / 1.468
<i>Subtotal: Support</i>	- / 5.262	- / 1.300	- / 1.313	- / 1.468	- / -	- / 1.468
<b>Installation</b>						
<i>Modification Item 1 of 1: Baseline Upgrade (2)</i>						
<i>Subtotal: Installation</i>	16 / 189.597	4 / 47.488	4 / 48.280	4 / 49.183	- / -	4 / 49.183
<i>Subtotal: Installation</i>	16 / 189.597	4 / 47.488	4 / 48.280	4 / 49.183	- / -	4 / 49.183
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>700.594</b>	<b>197.574</b>	<b>168.952</b>	<b>184.749</b>	<b>0.000</b>	<b>184.749</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135	<b>Modification Number / Title:</b> 4263 / RIVET JOINT

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Baseline Upgrade (2)

**Manufacturer Information**

Manufacturer Name: L3Harris Technologies		Manufacturer Location: Greenville, TX	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 9	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	Dec 2021
Delivery Dates	Sep 2020	Sep 2021	Sep 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	16 / 189.597	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	4 / 47.488	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	4 / 48.280	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	4 / 49.183	- / -	4 / 49.183
Total	16 / 189.597	4 / 47.488	4 / 48.280	4 / 49.183	- / -	4 / 49.183

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	16	1	1	1	1	1	1	1	1	1	1	1
Out	16	1	1	1	1	1	1	1	1	1	1	1

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135			<b>Modification Number / Title:</b> 4265 / COMBAT SENT		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		46.956	9.985	9.966	10.191	0.000	10.191
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		46.956	9.985	9.966	10.191	0.000	10.191
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>46.956</b>	<b>9.985</b>	<b>9.966</b>	<b>10.191</b>	<b>0.000</b>	<b>10.191</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

FY22 procurement funding acquires and installs various upgrade and enhancement modifications for the two (2) RC-135U COMBAT SENT aircraft performing Air Combat Command (ACC) directed operational missions. Due to the rapidly changing global threat environment and technological advances of our adversaries, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and Intelligence Community (IC) requirements.

The Operational Requirements Document (ORD) addresses airframe, sensor, navigation, communications, data link, and processing requirements necessary to keep the RC-135 fleet viable through 2050. A Program Management Directive (PMD) provides direction to the 645th Aeronautical Systems Group (645 AESG) for the acquisition and sustainment of the weapons system, associated mission support equipment, and processing, exploitation and dissemination tools.

The RC-135U COMBAT SENT program -- Defense Airborne Reconnaissance Program (DARP)/Manned Reconnaissance Systems) is managed in accordance with an incremental baseline upgrade acquisition strategy in order to maintain collection parity with the evolving threat environment. The 645 AESG's Baseline upgrade strategy requires purchase agreements for long-lead items that take approximately 12 months from contract award to delivery. Items required for integration in a given Baseline upgrade are contracted for purchase in the first year of the procurement funding cycle and are acquired and installed in the next year. This acquisition strategy has been successful in maintaining critical combat capability in the ISR arena over the last 50 years.

FY22 procurement funding efforts will concentrate on sustainment COMBAT SENT Baseline 5 and completion of the COMBAT SENT Baseline 6 enhancements respectively. Baseline 6 subsystem upgrades consist of, but are not limited to: Wideband collection, Scientific and Technical Processors, improved antennas, improved operator interface and reporting tools, sensor calibration/testing systems, integration of the RIVET JOINT Baseline 13 Communication Intelligence (COMINT) suite, and enhancing capabilities in dense signal environments.

Funding for this exhibit contained in PE 0305207F.

**Milestone/Development Status**

FY22 procurement funding is associated with the acquisition, integration, fielding and logistical support efforts for the Baseline 6 configuration upgrades/enhancements of the two (2) RC-135U COMBAT SENT aircraft, sensor systems, and associated ground support systems. These upgrades are attributed to the research and development efforts initiated in FY18 and FY19. These initiatives formed the basis for the RC-135U COMBAT SENT fleet modification strategy.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135		<b>Modification Number / Title:</b> 4265 / COMBAT SENT	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RC-135U		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305207F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Baseline Upgrade (3)						
A Kits						
Recurring						
Baseline Upgrade:INSTALL KITS Group A (Active)	4 / 21.631	1 / 2.081	1 / 2.118	1 / 2.156	- / -	1 / 2.156
<i>Subtotal: Recurring</i>	- / 21.631	- / 2.081	- / 2.118	- / 2.156	- / -	- / 2.156
B Kits						
Recurring						
Baseline Upgrade:EQUIPMENT Group B (Active)	4 / 4.250	1 / 1.121	1 / 1.141	1 / 1.161	- / -	1 / 1.161
<i>Subtotal: Recurring</i>	- / 4.250	- / 1.121	- / 1.141	- / 1.161	- / -	- / 1.161
<i>Subtotal: Baseline Upgrade (3)</i>	- / 25.881	- / 3.202	- / 3.259	- / 3.317	- / -	- / 3.317
<i>Subtotal: Procurement, All Modification Items</i>	- / 25.881	- / 3.202	- / 3.259	- / 3.317	- / -	- / 3.317
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Baseline Upgrade (3)						
Baseline Upgrade:INSTALL KITS Group A (Active)	4 / 21.075	1 / 6.783	1 / 6.707	1 / 6.874	- / -	1 / 6.874
<i>Subtotal: Installation</i>	4 / 21.075	1 / 6.783	1 / 6.707	1 / 6.874	- / -	1 / 6.874
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>46.956</b>	<b>9.985</b>	<b>9.966</b>	<b>10.191</b>	<b>0.000</b>	<b>10.191</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> DARP01 / RC-135	<b>Modification Number / Title:</b> 4265 / COMBAT SENT

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Baseline Upgrade (3)

**Manufacturer Information**

Manufacturer Name: L3Harris Technologies		Manufacturer Location: Greenville, TX	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 6	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	Dec 2021
Delivery Dates	Jun 2020	Jun 2021	Jun 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 21.075	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	1 / 6.783	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	1 / 6.707	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	1 / 6.874	- / -	1 / 6.874
<b>Total</b>	<b>4 / 21.075</b>	<b>1 / 6.783</b>	<b>1 / 6.707</b>	<b>1 / 6.874</b>	<b>- / -</b>	<b>1 / 6.874</b>

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E00300 / E-3
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207417F	<b>Other Related Program Elements:</b> 0207417F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	999.819	102.092	118.068	109.855	-	109.855	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	999.819	102.092	118.068	109.855	-	109.855	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>999.819</b>	<b>102.092</b>	<b>118.068</b>	<b>109.855</b>	<b>-</b>	<b>109.855</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	19.975	13.835	1.671	-	1.671	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The four-engine E-3 is a modified Boeing 707 airframe which carries airborne radar and provides all-altitude air surveillance, threat warning, and control of theater air forces. Totals include funding for Airborne Warning and Control System (AWACS) Upgrades. This line item funds modifications and may be used to address Diminishing Manufacturing Sources (DMS) issues for the overall E-3 weapon system to include aircraft, simulators, and training devices.

Life of Type (LoT) buy to procure parts for retrofit of Production jets.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
E00300 / E-3

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207417F **Other Related Program Elements:** 0207417F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	50001T / BLOCK 40/45 UPGRADE (Capability Improvement)				- / 658.246	- / -	- / -	- / 0.000	- / -	- / 0.000
P-40a***	50002T / AWACS Mode 5 Acceleration (Capability Improvement)				- / -	- / 1.907	- / 0.823	- / 1.132	- / -	- / 1.132
P-40a***	7225 / NEXT GENERATION IDENTIFICATION FRIEND OR FOE (IFF) (Capability Improvement)				- / 56.833	- / -	- / -	- / -	- / -	- / -
P-40a***	8662 / AETC MTD UPGRADES-FIELD TRAINING DETACHMENTS (Capability Improvement)				- / 8.406	- / 0.719	- / 0.700	- / 0.700	- / -	- / 0.700
P-40a***	9707 / RM&A Mod (Reliability & Maintainability)				- / 22.294	- / 0.328	- / 0.320	- / -	- / -	- / -
P-40a***	9716 / VERTICAL STABILIZER AND RUDDER (Reliability & Maintainability)				- / 1.816	- / -	- / -	- / -	- / -	- / -
P-40a***	99999XA / LOW COST MOD - AIRFRAME (Reliability & Maintainability)				- / 4.448	- / 1.999	- / 1.999	- / 0.999	- / -	- / 0.999
P-40a***	99999XB / LOW COST MOD - AVIONICS & MISSION SYSTEMS (Reliability & Maintainability)				- / 4.448	- / 1.999	- / 1.999	- / 0.999	- / -	- / 0.999
P-40a***	99999XC / Low Cost Mod - Communications (Reliability & Maintainability)				- / -	- / -	- / 1.999	- / 0.999	- / -	- / 0.999
P-40a***	99999XD / Low Cost Mod - Human Systems (Reliability & Maintainability)				- / -	- / -	- / 1.999	- / 0.999	- / -	- / 0.999
P-3a	50002 / Communication Networking Upgrade (CNU) (Capability Improvement)			B	- / 0.000	- / 2.879	- / 27.589	- / 24.395	- / 0.000	- / 24.395
P-3a	9709 / E-3 DRAGON (Capability Improvement)			B	- / 155.435	- / 68.290	- / 69.893	- / 48.129	- / 0.000	- / 48.129
P-3a	9718 / IP-enabled Capability (IPEC) (Capability Improvement)			B	- / 87.893	- / 23.971	- / 10.747	- / 13.612	- / 0.000	- / 13.612
P-3a	9721 / AWACS Communications Integration Program (ACIP) (Capability Improvement)			B	- / -	- / 0.000	- / 0.000	- / 17.891	- / 0.000	- / 17.891
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 999.819</b>	<b>- / 102.092</b>	<b>- / 118.068</b>	<b>- / 109.855</b>	<b>- / -</b>	<b>- / 109.855</b>

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

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

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

**Justification:**  
This program, P-3A Mod 9721, AWACS Communications Integration Program (ACIP), is a new start.  
  
Funding will continue to provide enhancements to E-3G sensors, Communication/Networking, Mission Computing, and Platform to maintain viable Battle Management Command and Control (BMC2) capability as long as needed and continues to address DMS and mandates.



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00300 / E-3	<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	2.879	27.589	24.395	0.000	24.395
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	2.879	27.589	24.395	0.000	24.395
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>2.879</b>	<b>27.589</b>	<b>24.395</b>	<b>0.000</b>	<b>24.395</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	6.222	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

E-3 Communication Network Upgrade (CNU): CNU will provide a Link 16 capability with high-jam-resistance, high-speed, crypto-secure computer-to-computer connectivity in support of every type of military platform from Air Force fighters to Navy submarines. The current 20 year old Class 2 terminal has sustainability/Diminishing Manufacturing Sources (DMS) issues and does not support mandated Crypto Mod (CM) & Freq Remap (FR). CNU resolves DMS issues, provides CM & FR, Link 16 enhancements & growth for Next Gen Tactical Data Link (TDL). CNU capabilities will be delivered in two Phases comprised of three efforts (MVPs). Phase 1: MVP1 (Crypto) will provide Enhanced Link 16 Crypto and Frequency Mapping, and MVP2 (HPAs) will provide High Powered Amplification of Communications. Phase II: MVP3 (Link 16 Advanced Capabilities) will provide Link 16 Advanced Communications Throughput via Ethernet Connection. This modification program has related RDT&E funding in PE 0207417F.

**Milestone/Development Status**

Development contract awarded 3Q FY19.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00300 / E-3		<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-3		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207417F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207417F	- / 44.877	- / 16.252	- / 29.290	- / 22.096	- / -	- / 22.096
<b>Procurement</b>						
<b>Modification Item 1 of 3: MVP1 (Crypto)</b>						
A Kits						
Recurring						
MVP1 (Crypto):INSTALL KITS Group A (Active)	- / -	4 / 2.492	19 / 12.167	7 / 2.782	- / -	7 / 2.782
<i>Subtotal: Recurring</i>	- / -	- / 2.492	- / 12.167	- / 2.782	- / -	- / 2.782
<i>Subtotal: MVP1 (Crypto)</i>	- / -	- / 2.492	- / 12.167	- / 2.782	- / -	- / 2.782
<b>Modification Item 2 of 3: MVP2 (HPAs)</b>						
A Kits						
Recurring						
MVP2 (HPAs):INSTALL KITS Group A (Active)	- / -	- / -	- / -	25 / 7.161	- / -	25 / 7.161
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 7.161	- / -	- / 7.161
<i>Subtotal: MVP2 (HPAs)</i>	- / -	- / -	- / -	- / 7.161	- / -	- / 7.161
<b>Modification Item 3 of 3: MVP3 (Link 16 Advanced Capabilities)</b>						
A Kits						
Recurring						
MVP3 (Link 16 Advanced Capabilities):INSTALL KITS Group A (Active)	- / -	- / -	20 / 2.181	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / -	- / 2.181	- / -	- / -	- / -
<i>Subtotal: MVP3 (Link 16 Advanced Capabilities)</i>	- / -	- / -	- / 2.181	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 2.492	- / 14.348	- / 9.943	- / -	- / 9.943
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / 0.068	- / 8.357	- / 9.923	- / -	- / 9.923
Change Orders	- / -	- / 0.050	- / 0.644	- / 0.623	- / -	- / 0.623
ICS-Labor	- / -	- / -	- / -	- / 1.012	- / -	- / 1.012
PMA - Contractor Services	- / -	- / 0.269	- / 4.240	- / 2.894	- / -	- / 2.894
<i>Subtotal: Support</i>	- / -	- / 0.387	- / 13.241	- / 14.452	- / -	- / 14.452
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00300 / E-3		<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-3			<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207417F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	0.000	2.879	27.589	24.395	0.000	24.395

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00300 / E-3	
		<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 3:</b> MVP1 (Crypto)			
<b>Manufacturer Information</b>			
Manufacturer Name: ViaSat		Manufacturer Location: Carlsbad, CA	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 24	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	May 2021	May 2022
Delivery Dates	May 2022	May 2023	May 2024
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 30	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00300 / E-3	
		<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 3:</b> MVP2 (HPAs)			
<b>Manufacturer Information</b>			
Manufacturer Name: North Star Scientific		Manufacturer Location: Kapolei HI	
Administrative Leadtime ( <i>in Months</i> ): 0		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Oct 2022
Delivery Dates			Oct 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 25	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00300 / E-3	
		<b>Modification Number / Title:</b> 50002 / Communication Networking Upgrade (CNU)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 3 of 3:</b> MVP3 (Link 16 Advanced Capabilities)			
<b>Manufacturer Information</b>			
Manufacturer Name: Viasat		Manufacturer Location: Carlsbad, CA	
Administrative Leadtime ( <i>in Months</i> ): 0		Production Leadtime ( <i>in Months</i> ): 24	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		May 2021	
Delivery Dates		May 2023	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 20	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00300 / E-3	<b>Modification Number / Title:</b> 9709 / E-3 DRAGON

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	155.435	68.290	69.893	48.129	0.000	48.129
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	155.435	68.290	69.893	48.129	0.000	48.129
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>155.435</b>	<b>68.290</b>	<b>69.893</b>	<b>48.129</b>	<b>0.000</b>	<b>48.129</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	23.479	10.448	10.631	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

E-3 DMS Replacement of Avionics for Global Operations and Navigation (DRAGON): DRAGON completes the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), and European Organization for the Safety of Air Navigation (EUROCONTROL) air traffic control mandated safety of flight capabilities. This program will provide the E-3 fleet with a cockpit upgrade, the flight instruments and other avionics for the Required Navigation Performance (RNP), and the surveillance and communication capabilities necessary to maintain continued critical unrestricted access to global airspace. Non-compliance will result in airspace restrictions and denials that will impact AWACS ability to support worldwide responses to situations requiring immediate on-scene BM/C2. DRAGON replaces the existing Diminishing Manufacturing Sources (DMS) Global Positioning System (GPS) Integrated Navigation System (GINS) with a modern Flight Management System (FMS) that will accommodate new capabilities including Mode 5 Identification Friend or Foe (IFF) and Joint Mission Planning System (JMPS). Also included as part of the modification is the addition of data link communications, voice and data link digital radios, and improved visual displays. Additionally, the acquisition of DRAGON flight simulators also contains DMS efforts which include removal of end-of-life software/hardware within simulator systems and move to a modular, common open system architecture that is sustainable and cyber resilient. The simulator effort also implements requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Emphasis on employment of Commercial-Off-The-Shelf (COTS) avionics is expected to lower cost, reduce the tech refresh cycle, and enhance life cycle management. DRAGON will provide development of support and test equipment needed for DRAGON production; DRAGON will also provide DMS and Interim Contractor Support (ICS) needed to support the DRAGON modified aircraft. The Engineering and Manufacturing Development (EMD) phase of DRAGON was executed as a Cooperative Program between the US and NATO. Production will be executed as a USAF only effort.

**Milestone/Development Status**

FY11-FY21 RDT&E funds support integration of the DRAGON requirements/flight simulator. EMD Contract Award: November 2011 Milestone B Approval: November 2011 Milestone C Approval: July 2017 LRIP Contract Award: 29 June 2017 FRP Contract Awards: Boeing Inc. 1 awarded 16 December 2020; FRP Collins award projected March 2021; FRP Boeing Inc. 2 projected August 2021; Boeing Inc. 3 projected October 2021

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00300 / E-3			<b>Modification Number / Title:</b> 9709 / E-3 DRAGON	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> E-3B, E-3C		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207417F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207417F	- / 391.385	- / 1.362	- / 1.351	- / -	- / -	- / -	
<b>Procurement</b>							
<b>Modification Item 1 of 1: DRAGON</b>							
A Kits							
Recurring							
DRAGON:INSTALL KITS Group A (Active)	5 / 17.118	4 / 11.351	4 / 7.944	5 / 9.466	- / -	5 / 9.466	
<i>Subtotal: Recurring</i>	- / 17.118	- / 11.351	- / 7.944	- / 9.466	- / -	- / 9.466	
B Kits							
Recurring							
DRAGON:EQUIPMENT Group B (Active)	5 / 39.070	4 / 13.335	4 / 15.635	5 / 13.740	- / -	5 / 13.740	
<i>Subtotal: Recurring</i>	- / 39.070	- / 13.335	- / 15.635	- / 13.740	- / -	- / 13.740	
<i>Subtotal: DRAGON</i>	- / 56.188	- / 24.686	- / 23.579	- / 23.206	- / -	- / 23.206	
<i>Subtotal: Procurement, All Modification Items</i>	- / 56.188	- / 24.686	- / 23.579	- / 23.206	- / -	- / 23.206	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 33.147	- / 5.161	- / 0.506	- / 0.312	- / -	- / 0.312	
GROUP B: TOTAL NONRECURRING	- / 20.452	- / 14.302	- / 7.128	- / 3.234	- / -	- / 3.234	
Change Orders	- / 26.003	- / 8.058	- / 9.861	- / 5.626	- / -	- / 5.626	
SIM/TRAINER	0 / 0.100	0 / 0.200	1 / 15.514	- / 2.100	- / -	- / 2.100	
ICS-Labor	- / 0.205	- / 0.537	- / 2.716	- / 3.732	- / -	- / 3.732	
PMA - Contractor Services	- / 5.422	- / 2.022	- / 2.603	- / 2.209	- / -	- / 2.209	
OTHER GOVT	- / 2.928	- / 0.422	- / 0.436	- / 0.449	- / -	- / 0.449	
PMA - Other Gov't Costs	- / 3.490	- / 7.731	- / 4.137	- / 1.470	- / -	- / 1.470	
<i>Subtotal: Support</i>	0 / 91.747	0 / 38.433	1 / 42.901	- / 19.132	- / -	- / 19.132	
<b>Installation</b>							
<b>Modification Item 1 of 1: DRAGON</b>	1 / 7.500	3 / 5.171	2 / 3.413	4 / 5.791	- / -	4 / 5.791	
<i>Subtotal: Installation</i>	1 / 7.500	3 / 5.171	2 / 3.413	4 / 5.791	- / -	4 / 5.791	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>155.435</b>	<b>68.290</b>	<b>69.893</b>	<b>48.129</b>	<b>0.000</b>	<b>48.129</b>	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00300 / E-3	<b>Modification Number / Title:</b> 9709 / E-3 DRAGON
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** DRAGON

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Oklahoma City
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Feb 2020	Feb 2021	Jan 2022
Delivery Dates	Aug 2021	Aug 2022	Jul 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 7.500	3 / 5.171	1 / 1.706	- / -	- / -	- / -
FY 2020	- / -	- / -	1 / 1.707	3 / 4.343	- / -	3 / 4.343
FY 2021	- / -	- / -	- / -	1 / 1.448	- / -	1 / 1.448
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	1 / 7.500	3 / 5.171	2 / 3.413	4 / 5.791	- / -	4 / 5.791

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00300 / E-3	<b>Modification Number / Title:</b> 9718 / IP-enabled Capability (IPEC)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	87.893	23.971	10.747	13.612	0.000	13.612
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	87.893	23.971	10.747	13.612	0.000	13.612
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>87.893</b>	<b>23.971</b>	<b>10.747</b>	<b>13.612</b>	<b>0.000</b>	<b>13.612</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	3.204	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Internet Protocol Enabled Communication (IPEC): IPEC provides the E-3G aircraft with a medium-bandwidth IP communications capability to connect to the Global Information Grid (GIG) and will support net-centric operations/warfare. IPEC provides a reliable IP-Enabled communication capability to support a shortened digitized kill-chain of time-sensitive targets. The modification provides a permanent INMARSAT-based IP-Enabled communications package supporting warfighter identified requirements for increased bandwidth SIPRNET and multi-domain networks. The IPEC program ensures future system viability by replacing components identified for Diminishing Manufacturing Source or cyber vulnerability concerns. This modification has related RDT&E funding in PE 0207417F.

**Milestone/Development Status**

EMD contract awarded 21 September 2015.

Limited Production Contract awarded 4 November 2016. Full-Rate Kits 11-24, Installs 11-17 UCA awarded 30 November 2017, definitized 15 May 2019; Full Rate kits 25 awarded 11 August 2020, Installs 18-23 awarded 16 November 2020, kits 26-28 awarded 28 January 2021, kit 29 award projected 1 May 2021, kits 30-31 award projected 30 November 2021.

Out of 30 Production aircraft, 16 IPEC mods have been completed to date.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00300 / E-3			<b>Modification Number / Title:</b> 9718 / IP-enabled Capability (IPEC)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> E-3		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207417F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0207417F	- / 65.486	- / 0.713	- / -	- / -	- / -	- / -	
<b>Procurement</b>							
<i>Modification Item 1 of 1: IP Enabled Communication</i>							
A Kits							
Recurring							
IP Enabled Communication:INSTALL KITS Group A (Active)	23 / 23.832	4 / 3.774	1 / 1.010	2 / 1.902	- / -	2 / 1.902	
<i>Subtotal: Recurring</i>	- / 23.832	- / 3.774	- / 1.010	- / 1.902	- / -	- / 1.902	
B Kits							
Recurring							
IP Enabled Communication:EQUIPMENT Group B (Active)	23 / 31.776	4 / 3.774	1 / 1.010	2 / 1.902	- / -	2 / 1.902	
<i>Subtotal: Recurring</i>	- / 31.776	- / 3.774	- / 1.010	- / 1.902	- / -	- / 1.902	
<i>Subtotal: IP Enabled Communication</i>	- / 55.608	- / 7.548	- / 2.020	- / 3.804	- / -	- / 3.804	
<i>Subtotal: Procurement, All Modification Items</i>	- / 55.608	- / 7.548	- / 2.020	- / 3.804	- / -	- / 3.804	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / 5.610	- / 2.932	- / 4.029	- / 3.381	- / -	- / 3.381	
GROUP A: TOTAL NONRECURRING	- / 12.749	- / 3.399	- / -	- / -	- / -	- / -	
Change Orders	- / 4.094	- / 10.020	- / 0.628	- / 4.860	- / -	- / 4.860	
ICS-Labor	- / 4.542	- / -	- / 3.291	- / -	- / -	- / -	
PMA - Contractor Services	- / 5.290	- / 0.072	- / 0.779	- / 1.567	- / -	- / 1.567	
<i>Subtotal: Support</i>	- / 32.285	- / 16.423	- / 8.727	- / 9.808	- / -	- / 9.808	
<b>Installation</b>							
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>87.893</b>	<b>23.971</b>	<b>10.747</b>	<b>13.612</b>	<b>0.000</b>	<b>13.612</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00300 / E-3	
<b>Modification Number / Title:</b> 9718 / IP-enabled Capability (IPEC)		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 1 of 1:</b> IP Enabled Communication	
<b>Manufacturer Information</b>			
Manufacturer Name: Boeing		Manufacturer Location: Oklahoma City	
Administrative Leadtime ( <i>in Months</i> ): 1		Production Leadtime ( <i>in Months</i> ): 16	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Jul 2021	Jul 2022	Jul 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 30	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00300 / E-3	<b>Modification Number / Title:</b> 9721 / AWACS Communications Integration Program (ACIP)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	17.891	0.000	17.891
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	17.891	0.000	17.891
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>0.000</b>	<b>0.000</b>	<b>17.891</b>	<b>0.000</b>	<b>17.891</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	1.671	-	1.671
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

This program, P-3A Mod 9721, AWACS Communications Integration Program (ACIP), is a new start.

ACIP will provide Mobile User Objective System (MUOS) and Second Generation Anti-Jam Tactical UHF Radio for NATO (SATURN) capability by replacing the existing Have Quick II and DAMA SATCOM radios with new radios capable of communicating via the existing and additional military waveforms as a combined integration program

Milestone/Development Status

N/A

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00300 / E-3		<b>Modification Number / Title:</b> 9721 / AWACS Communications Integration Program (ACIP)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-3		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207417F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0207417F	- / -	- / 1.367	- / 14.883	- / 24.194	- / -	- / 24.194
<b>Procurement</b>						
<i>Modification Item 1 of 1: ACIP</i>						
A Kits						
Recurring						
ACIP:INSTALL KITS Group A (Active)	- / -	- / -	- / -	13 / 0.419	- / -	13 / 0.419
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 0.419	- / -	- / 0.419
B Kits						
Recurring						
ACIP:EQUIPMENT Group B (Active)	- / -	- / -	- / -	13 / 9.917	- / -	13 / 9.917
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 9.917	- / -	- / 9.917
<i>Subtotal: ACIP</i>	- / -	- / -	- / -	- / 10.336	- / -	- / 10.336
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 10.336	- / -	- / 10.336
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING						
Change Orders	- / -	- / -	- / -	- / 0.076	- / -	- / 0.076
PMA - Contractor Services	- / -	- / -	- / -	- / 1.859	- / -	- / 1.859
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 7.555	- / -	- / 7.555
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	-	0.000	0.000	17.891	0.000	17.891

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00300 / E-3	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> ACIP			
<b>Manufacturer Information</b>			
Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime ( <i>in Months</i> ): 6		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Jun 2022
Delivery Dates			Jun 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 13	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E00400 / E-4
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0302015F	<b>Other Related Program Elements:</b> 0101316F, 0302015F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	244.359	52.977	44.140	19.081	-	19.081	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	244.359	52.977	44.140	19.081	-	19.081	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>244.359</b>	<b>52.977</b>	<b>44.140</b>	<b>19.081</b>	<b>-</b>	<b>19.081</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	0.332	0.339	0.346	-	0.346	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This line item funds modifications to the four (4) aircraft E-4B fleet. The four (4) engine E-4B is a highly modified Boeing 747 Model 200 (747-200) airframe which supports the National Airborne Operations Center (NAOC) mission. NAOC provides national civilian and military leadership with a worldwide, survivable, and enduring communications node of the National Military Command System (NMCS). The modifications listed within this document provide updates to maintain Federal Aviation Agency (FAA) airframe flight worthiness certification and provide additional capabilities to the aircraft flight control, navigation and communication systems, as well as the primary mission equipment to ensure the E-4B is able to execute its various missions. These modifications also enhance operational capability while improving flight safety, reliability, and maintainability.

The current Boeing estimated design service life of the Boeing 747-200 E-4B airframe is 115K hours and 30K cycles. It is estimated this limit will be reached by 2033. However, as the aircraft age, depot periods will need to be extended due to maintenance issues associated with an aging fleet, thus limiting the E-4B's ability to support the NAOC mission due to aircraft non-availability. The age of the four (4) E-4B aircraft fleet presents Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues involving primary mission equipment, and to a lesser extent the airframe. Airframe DMSMS and issues associated with the non-availability of FAA certified parts are expected to increase due to the dwindling world-wide number of Boeing 747-200 aircraft because of the international commercial airline industry removing aging aircraft from their inventories. Funding also supports emerging modification requirements, Government travel, Advisory and Assistance Services Contract (A&ASC), Federally Funded Research and Development Contract (FFRDC) support and equipment as required.

Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

This funding may include emerging modification requirements to support PMA, A&AS, equipment and other government cost.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E00400 / E-4

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0302015F	Other Related Program Elements: 0101316F, 0302015F
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	3410 / NPES (NC2AIS) E-4B (Reliability & Maintainability)				- / 2.730	- / -	- / -	- / -	- / -	- / -
P-40a***	3411 / Survivable SHF (Capability Improvement)				- / -	- / -	- / 0.045	- / 1.556	- / -	- / 1.556
P-40a***	4380 / MUOS (Capability Improvement)				- / 0.000	- / 3.307	- / 0.233	- / 4.559	- / -	- / 4.559
P-40a***	4406A / SHF Modernization (Capability Improvement)				- / 120.088	- / -	- / -	- / -	- / -	- / -
P-40a***	4409 / Low Frequency Transmit System (LFTS) (Capability Improvement)				- / 78.235	- / 34.248	- / 20.018	- / -	- / -	- / -
P-40a***	9709F / CNS/ATM(ADS-B OUT) (Capability Improvement)				- / 9.978	- / 0.000	- / -	- / -	- / -	- / -
P-40a***	99999S / SERVICE BULLETINS (Reliability & Maintainability)				- / 12.864	- / 0.067	- / 5.719	- / 1.186	- / -	- / 1.186
P-40a***	99999X / Low Cost Modifications (Reliability & Maintainability)				- / 12.340	- / 1.990	- / 1.990	- / 1.990	- / -	- / 1.990
P-3a	1 / AEHF Compatible Terminal/PNVC (Capability Improvement)		B		- / 8.124	- / 13.365	- / 16.135	- / 9.790	- / 0.000	- / 9.790
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 244.359</b>	<b>- / 52.977</b>	<b>- / 44.140</b>	<b>- / 19.081</b>	<b>- / -</b>	<b>- / 19.081</b>

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

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

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

**Justification:**  
N/A

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date: May 2021</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00400 / E-4	<b>Modification Number / Title:</b> 1 / AEHF Compatible Terminal/PNVC

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	8.124	13.365	16.135	9.790	0.000	9.790
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	8.124	13.365	16.135	9.790	0.000	9.790
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>8.124</b>	<b>13.365</b>	<b>16.135</b>	<b>9.790</b>	<b>0.000</b>	<b>9.790</b>

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

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

**Description:**

This modification will install a Family of Advanced Beyond-Line-Of-Sight (FAB-T) / Presidential National Voice Conferencing (PNVC) system and will remove the currently installed Military Strategic Tactical Relay (MILSTAR) / Survivable Emergency Conferencing Network (SECN) systems. This modification is required to meet existing Presidential Policy Directive (PPD)-35, and National Security Presidential Directive (NSPD)-51/Homeland Security Presidential Directive (HSPD)-20 requirements and to ensure continued connectivity and interoperability as satellite and communications infrastructure evolves. FAB-T Command Post Terminals will replace the MILSTAR Terminal and will provide access to protected wideband Advanced Extremely High Frequency (AEHF) satellite networks. PNVC replaces SECN, which will not be supported once the AEHF satellite network is in place.

This funding may include emerging modification requirements to support PMA, A&AS, equipment and other government cost.

**Milestone/Development Status**

Milestone B occurred in November 2016; Systems Requirements Review (SRR) occurred in June 2017; Preliminary Design Review (PDR) occurred in May 2018; and the Critical Design Review (CDR) occurred in 4QTR FY18. Two prototype kits funded with FY16 RDT&E. Second production kit procured in FY20. Production aircraft 2 installation, Automatic Patch and Test System (APTS), and antenna Retrofit 1, 2, and 3 aircraft A kits funded with FY21 procurement. FY22 procurement will fund APTS Retrofit installation, FAB-T Antenna Retrofit 1 installation, and technical data updates. Other efforts will include integration and support activities and logistics planning.

Milestone C completed 2QFY21. Production contract RFP release briefs approved by MDA on 2 Jul 19 for Production Kit 1 procurement and 17 Apr 20 for Production Kit 2 procurement.

Note: FY20 production kit reflects procurement of one FAB-T kit and zero PNVC kits. Justification based on economic buy for the PNVC kit in FY19.

Note: FY21 funds will be used for 3 retrofit kits.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00400 / E-4		<b>Modification Number / Title:</b> 1 / AEHF Compatible Terminal/PNVC	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-4B		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0302015F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0302015F	1 / 24.337	1 / 15.087	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> AEHF Initial Kits						
A Kits						
Recurring						
AEHF Initial Kits:INSTALL KITS Group A (Active)	1 / 7.607	1 / 10.500	3 / 4.100	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 7.607	- / 10.500	- / 4.100	- / -	- / -	- / -
<i>Subtotal: AEHF Initial Kits</i>	- / 7.607	- / 10.500	- / 4.100	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.607	- / 10.500	- / 4.100	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	- / 0.517	- / 2.865	- / 1.535	- / 1.690	- / -	- / 1.690
<i>Subtotal: Support</i>	- / 0.517	- / 2.865	- / 1.535	- / 1.690	- / -	- / 1.690
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> AEHF Initial Kits						
	- / -	- / -	1 / 10.500	1 / 8.100	- / -	1 / 8.100
<i>Subtotal: Installation</i>	- / -	- / -	1 / 10.500	1 / 8.100	- / -	1 / 8.100
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>8.124</b>	<b>13.365</b>	<b>16.135</b>	<b>9.790</b>	<b>0.000</b>	<b>9.790</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00400 / E-4	<b>Modification Number / Title:</b> 1 / AEHF Compatible Terminal/PNVC

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** AEHF Initial Kits

**Manufacturer Information**

Manufacturer Name: Raytheon		Manufacturer Location: Largo, FL	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 16	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2020	Jun 2021	
Delivery Dates	Oct 2021	Oct 2022	

**Installation Information**

**Method of Implementation:** Depot

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	1 / 0.000	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	1 / 8.100	- / -	1 / 8.100
FY 2021	- / -	- / -	0 / 10.500	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	1 / 10.500	1 / 8.100	- / -	1 / 8.100

**Installation Schedule**

	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	1	-	-	-	1	-
Out	0	-	-	-	-	-	-	-	-	-	-	-	1

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E00800 / E-8
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207581F	Other Related Program Elements: N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	18.000	48.778	22.037	16.312	-	16.312	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	18.000	48.778	22.037	16.312	-	16.312	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>18.000</b>	<b>48.778</b>	<b>22.037</b>	<b>16.312</b>	<b>-</b>	<b>16.312</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

This line item funds modifications to the E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. JSTARS was developed for ground surveillance, targeting, and battle management. The E-8C is a modified Boeing 707-300 airframe that provides a unique blend of Battle Management Command and Control (BMC2) and Intelligence, Surveillance, and Reconnaissance (ISR). Air Battle Managers onboard the JSTARS use its wide area ground surveillance radar to build situational awareness and identify targets which are passed to strike assets or cross-cued with ISR platforms. The capability to perform this dual mission at the tactical edge both reduces the time to execute the kill chain and improves ISR collections across the range of military options.

There are 16 E-8Cs in inventory plus 1 E-8A trainer.

Funding may be used to address other general modernization and/or sustainment related requirements, such as but not limited to: Diminishing Manufacturing Sources (DMS) / technical refresh of hardware or software, aviation and security mandates, or safety of flight requirements. Additionally, funds may be used to procure items associated with/UONs or rapid acquisition/fielding requirements in support of combat mission related requirements, MUOS-SATURN, MIDS-JTRS (CMN-4), and Blue Force Tracker.

**FY2020:**

- Emergency Locator Transmitter (ELT) completed all kits delivered for installation
- CENTRIXS A/C kit selloff complete
- BE-CDL awarded risk reduction effort - initial engineering design and installation plans for NRE effort
- DMOC award complete
- MODE 5 GFE on order, Contract awarded 3QFY21
- Provided other Program Office direct cost associated with executing programs.

**FY2021**

- BE-CDL continued NRE
- SATCOM / MUOS Radios awarded 3QFY21
- Provide other Program Office direct cost associated with executing programs

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> E00800 / E-8

<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0207581F	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

FY2022  
 - BE-CDL continues NRE  
 - SATCOM / MUOS continues procurement of radios / installs  
 - Provide other Program Office direct cost associated with executing programs

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	48.778	22.037	16.312	-	16.312	-	-	-	-
<b>Total:</b> Secondary Distribution	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>48.778</b>	<b>22.037</b>	<b>16.312</b>	-	<b>16.312</b>	-	-	-	-



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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E00800 / E-8

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0207581F	Other Related Program Elements: N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	38203 / Distributed Mission Ops Center (DMOC) (Other)				- / -	- / 4.029	- / -	- / -	- / -	- / -
P-40a***	38204 / JSTARS OCO Requirements (Other)				- / 13.000	- / -	- / -	- / -	- / -	- / -
P-40a***	38207 / JSTARS Re-engining (Reliability & Maintainability)				- / -	- / 20.000	- / -	- / -	- / -	- / -
P-3a	38202 / Common Data Link (Other)		B		- / 5.000	- / 24.749	- / 14.436	- / 8.711	- / 0.000	- / 8.711
P-3a	38206 / SATCOM/MUOS Radios (Capability Improvement)		B		- / -	- / -	- / 7.601	- / 7.601	- / 0.000	- / 7.601
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 18.000</b>	<b>- / 48.778</b>	<b>- / 22.037</b>	<b>- / 16.312</b>	<b>- / -</b>	<b>- / 16.312</b>

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

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

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

**Justification:**  
 In FY20 this program, P-3a, Mod 38207 JSTARS Re-engining was redefined by congressional language to be MODE 5 (IFF), and ARC-210 Gen 6 radios, as funds permit.  
  
 In FY21, there was a congressional add of \$11M for modernization for this program. This was applied to P-3a, Mod 38202 Common Data Link, bringing the FY21 program total for Common Data Link to \$14.436M.  
  
 The FY22 PB divests 4 E-8C aircraft.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00800 / E-8	<b>Modification Number / Title:</b> 38202 / Common Data Link

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	5.000	24.749	14.436	8.711	0.000	8.711
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	5.000	24.749	14.436	8.711	0.000	8.711
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>5.000</b>	<b>24.749</b>	<b>14.436</b>	<b>8.711</b>	<b>0.000</b>	<b>8.711</b>

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

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

**Description:**

Bandwidth Efficient Common Data Link (BE-CDL) is a jam-resistant air-to-ground line-of-sight link from the JSTARS to the Army's Tactical Intelligence Ground Station (TGS) and USMC Tactical Exploitation Group Remote Work Station (TEG-RWS). Current Surveillance Common Data Link (SCDL) is encrypted using the KGV-8, which is near end of life and has been operating with an extended National Security Agency (NSA) waiver. Section 144 of the FY18 NDAA has mandated that military aircraft use a specified standard data link, eliminating the waiver authority of the Deputy SECDEF on 1 October 23. NSA has also mandated type 1 encryption on all airborne Common Data Link (CDL) platforms.

Milestone/Development Status

The BE-CDL program requires no development to provide Air-to-Ground capability.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	24.749	14.436	8.711	-	8.711
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	24.749	14.436	8.711	0.000	8.711

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00800 / E-8		<b>Modification Number / Title:</b> 38202 / Common Data Link	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-8C		<b>Modification Type:</b> Other			<b>Related RDT&amp;E PEs:</b>	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: CDL</i>						
B Kits						
Recurring						
CDL:EQUIPMENT Group B (Active)	- / -	- / 24.749	- / 14.436	- / 8.711	- / -	- / 8.711
<i>Subtotal: Recurring</i>	- / -	- / 24.749	- / 14.436	- / 8.711	- / -	- / 8.711
<i>Subtotal: CDL</i>	- / -	- / 24.749	- / 14.436	- / 8.711	- / -	- / 8.711
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 24.749	- / 14.436	- / 8.711	- / -	- / 8.711
<b>Support (All Modification Items)</b>						
PMA - Contractor Services	- / 5.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 5.000	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>5.000</b>	<b>24.749</b>	<b>14.436</b>	<b>8.711</b>	<b>0.000</b>	<b>8.711</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> E00800 / E-8	
<b>Modification Number / Title:</b> 38202 / Common Data Link			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> CDL			
<b>Manufacturer Information</b>			
Manufacturer Name: Northrop Grumman		Manufacturer Location: Melbourne	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 10	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Sep 2020	May 2021	Jan 2022
Delivery Dates	Jul 2021	Mar 2022	Nov 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 12	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00800 / E-8	<b>Modification Number / Title:</b> 38206 / SATCOM/MUOS Radios
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	7.601	7.601	0.000	7.601
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	7.601	7.601	0.000	7.601
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>7.601</b>	<b>7.601</b>	<b>0.000</b>	<b>7.601</b>

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

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

**Description:**

Replace current radios & associated filters, amps, and any associated software/hardware required to satisfy MUOS/SATURN requirements. This is in accordance with CJCSI 6251.01D. The JSTARS radio program is executing incrementally, and quantities presented on Page 2 of P-3a represent aircraft with MUOS radio capability.

**Milestone/Development Status**

No development required for MUOS increment.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	-	-	-	-	-
	-	7.601	7.601	-	7.601
<b>Total:</b>	-	-	-	-	-
<b>Secondary Distribution</b>	-	<b>7.601</b>	<b>7.601</b>	<b>0.000</b>	<b>7.601</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E00800 / E-8			<b>Modification Number / Title:</b> 38206 / SATCOM/MUOS Radios	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> E-8C			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: SATCOM/MUOS Radios</i>							
B Kits							
Recurring							
SATCOM/MUOS Radios:EQUIPMENT Group B (Active)							
	- / -	- / -	2 / 7.601	2 / 7.601	- / -	2 / 7.601	
<i>Subtotal: Recurring</i>							
	- / -	- / -	- / 7.601	- / 7.601	- / -	- / 7.601	
<i>Subtotal: SATCOM/MUOS Radios</i>							
	- / -	- / -	- / 7.601	- / 7.601	- / -	- / 7.601	
<i>Subtotal: Procurement, All Modification Items</i>							
	- / -	- / -	- / 7.601	- / 7.601	- / -	- / 7.601	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING							
	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	
<i>Subtotal: Support</i>							
	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	
<b>Installation</b>							
<i>Modification Item 1 of 1: SATCOM/MUOS Radios</i>							
	- / -	- / -	0 / 0.000	4 / 0.000	- / -	4 / 0.000	
<i>Subtotal: Installation</i>							
	- / -	- / -	- / 0.000	4 / 0.000	- / -	4 / 0.000	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>							
	-	-	7.601	7.601	0.000	7.601	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E00800 / E-8	<b>Modification Number / Title:</b> 38206 / SATCOM/MUOS Radios
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** SATCOM/MUOS Radios

**Manufacturer Information**

Manufacturer Name: Northrop Grumman Manufacturer Location: Melbourne FL.

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 6

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

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 0.000	2 / 0.000	- / -	2 / 0.000
FY 2022	- / -	- / -	- / -	2 / 0.000	- / -	2 / 0.000
<b>Total</b>	- / -	- / -	0 / 0.000	4 / 0.000	- / -	4 / 0.000

**Installation Schedule**

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

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207417F **Other Related Program Elements:** 0207417F

**Line Item MDAP/MAIS Code:** 277

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	805.139	32.821	53.343	30.327	-	30.327	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	805.139	32.821	53.343	30.327	-	30.327	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>805.139</b>	<b>32.821</b>	<b>53.343</b>	<b>30.327</b>	-	<b>30.327</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	7.666	3.226	3.282	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The Airborne Warning and Control System (AWACS) provides a highly mobile, flexible, survivable theater Battle Management (BM), Wide Area Surveillance, and Command and Control (C2) capability. It is capable of detecting, identifying, and tracking airborne and maritime targets at extended ranges as well as identifying air/ground emitters. AWACS can relay "big picture" information to C2 agencies and friendly aircraft. AWACS provides worldwide response to situations requiring immediate on-scene C2/BM using embedded real-time surveillance for employment of US and allied combat air forces. AWACS is critical to gaining and maintaining battle-space air superiority. AWACS coordinates with both tactical and C2 assets in theater to execute the air mission. The AWACS Block 40/45 Upgrade program is the largest modification in U.S. AWACS history and represents the critical foundation and baseline system required for all future AWACS enterprise modifications including net-centric operations. The AWACS Block 40/45 Upgrade provides a single target/single track capability with an improved human-machine interface for time-critical targeting designed to increase combat effectiveness and reduce fratricide. The AWACS Block 40/45 Upgrade program includes an upgrade to Electronic Support Measures sensor data processing; Multi-Source Integration; a Data Link Infrastructure with prioritized data link bandwidth management for Link 16/Link 11; new battle management tools; capability to parse, allow user access to, and integrate Air Control Order/Air Tasking Order data; enhanced mission and console recording capabilities; and an update to a low-bandwidth internet chat capability (Secure Iridium Chat).

FY22 funding requested to complete block modification upgrades to the 40/45 configuration (E-3G). Two (2) Block 30/35 aircraft (P28, P29) will be inducted to be retrofitted to the Block 40/45 DMS 4.0 baseline configuration. Four (4) aircraft that began modification from Block 30/35 to Block 40/45 in FY2021 (P24, P25, P26, P7), and one (1) Block 30/35 aircraft inducted in FY22 (P28) will be completed in FY2022. The aircraft will be delivered to the 552nd Air Control Wing (ACW) at Tinker AFB, OK, bringing the total Block 40/45 (E-3G) configured aircraft to 28 of the planned total of 31 aircraft to be modified.

In FY2022, the Program will also induct eight (8) Block 40/45 aircraft at older DMS baselines (P8, P9, P10, P11, P12, P13, P14, P15) for modification to the DMS 4.0 baseline configuration. As these aircraft were captured upon initial modification to the Block 40/45 configuration, these DMS updates are not captured in the Installation Schedule.

The Program will continue to meet emerging cyber security and system integration requirements and continue executing a Performance Based Logistics contract to maintain fielded aircraft and ground support systems. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45

<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207417F	<b>Other Related Program Elements:</b> 0207417F
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**Line Item MDAP/MAIS Code:** 277

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / BLOCK 40/45 BLOCK UPGRADE (Capability Improvement)		A		- / 805.139	- / 32.821	- / 53.343	- / 30.327	- / 0.000	- / 30.327
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 805.139</b>	<b>- / 32.821</b>	<b>- / 53.343</b>	<b>- / 30.327</b>	<b>- / -</b>	<b>- / 30.327</b>

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

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

**Justification:**  
 FY22 funding requested to complete block modification upgrades to the 40/45 configuration (E-3G). Two (2) Block 30/35 aircraft (P28, P29) will be inducted to be retrofitted to the Block 40/45 DMS 4.0 baseline configuration. Four (4) aircraft that began modification from Block 30/35 to Block 40/45 in FY2021 (P24, P25, P26, P7), and one (1) Block 30/35 aircraft inducted in FY22 (P28) will be completed in FY2022. The aircraft will be delivered to the 552nd Air Control Wing (ACW) at Tinker AFB, OK, bringing the total Block 40/45 (E-3G) configured aircraft to 28 of the planned total of 31 aircraft to be modified.

In FY2022, the Program will also induct eight (8) Block 40/45 aircraft at older DMS baselines (P8, P9, P10, P11, P12, P13, P14, P15) for modification to the DMS 4.0 baseline configuration. As these aircraft were captured upon initial modification to the Block 40/45 configuration, these DMS updates are not captured in the Installation Schedule.

The Program will continue to meet emerging cyber security and system integration requirements and continue executing a Performance Based Logistics contract to maintain fielded aircraft and ground support systems. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan.

The program will continue to meet emerging cyber security and system integration requirements and maintain fielded aircraft by transitioning from Interim Contractor Support (ICS) to two long-term PBL Contractor Logistics Support (CLS) contracts that were awarded in FY2020. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45	<b>Modification Number / Title:</b> 1 / BLOCK 40/45 BLOCK UPGRADE

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	805.139	32.821	53.343	30.327	0.000	30.327
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	805.139	32.821	53.343	30.327	0.000	30.327
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>805.139</b>	<b>32.821</b>	<b>53.343</b>	<b>30.327</b>	<b>0.000</b>	<b>30.327</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	7.666	3.226	3.282	0.000	-	0.000
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Airborne Warning and Control System (AWACS) provides a highly mobile, flexible, survivable theater Battle Management (BM), Wide Area Surveillance, and Command and Control (C2) capability. It is capable of detecting, identifying, and tracking airborne and maritime targets at extended ranges as well as identifying air/ground emitters. AWACS can relay "big picture" information to C2 agencies and friendly aircraft. AWACS provides worldwide response to situations requiring immediate on-scene C2/BM using embedded real-time surveillance for employment of US and allied combat air forces. AWACS is critical to gaining and maintaining battle-space air superiority. AWACS coordinates with both tactical and C2 assets in theater to execute the air mission. The AWACS Block 40/45 Upgrade program is the largest modification in U.S. AWACS history and represents the critical foundation and baseline system required for all future AWACS enterprise modifications including net-centric operations. The AWACS Block 40/45 Upgrade provides a single target/single track capability with an improved human-machine interface for time-critical targeting designed to increase combat effectiveness and reduce fratricide. The AWACS Block 40/45 Upgrade program includes an upgrade to Electronic Support Measures sensor data processing; Multi-Source Integration; a Data Link Infrastructure with prioritized data link bandwidth management for Link 16/Link 11; new battle management tools; capability to parse, allow user access to, and integrate Air Control Order/Air Tasking Order data; enhanced mission and console recording capabilities; and an update to a low-bandwidth internet chat capability (Secure Iridium Chat).

Low Rate Initial Production (LRIP) was approved for six (6) aircraft in November 2008 [one (1) buy in FY2009, two (2) buys in FY2010, and three (3) buys in FY2012]. The Block 40/45 Full Rate Production was approved in November 2012 for the remaining twenty-five (25) aircraft and technology refresh of the six (6) LRIP aircraft; the corresponding production contract was awarded on 27 December 2012. The FY2015 President's budget reduced the AWACS inventory of 31 aircraft to 24 and funding for Block 40/45 Full Rate Production to 24 aircraft. Budgetary actions in FY2017-FY2019 have restored the required funding for 31 aircraft. The program then awarded an undefinitized contract action in FY2019 to procure the remaining Block 40/45 production kits to be used to modify the seven (7) remaining Block 30/35 aircraft, and subsequently a contract to procure production kits to update version 3.0 aircraft to version 4.0, and provide contractor shipside and engineering support for modifications. Additionally, the Program Office will provide updates to fielded ground support systems and provide systems to support organic software maintenance.

In FY2013, the program office began Depot Activation activities to comply with Sources of Repair Assignment Program (SORAP) 09-063 that mandates organic hardware and software maintenance. In December 2015 the Government awarded a contract to fully implement an organic software maintenance facility for aircraft and ground systems at the 558th Software Engineering Squadron by FY 2020 and continued adding capability in FY 2021. Depot activation of select components and implementation of a Performance Based Logistics (PBL) strategy recommended by our Product Support Business Case Analysis are in work.

The Program will continue to meet emerging cyber security and system integration requirements and maintain fielded aircraft through two long-term PBL Contractor Logistics Support (CLS) contracts that were awarded in FY20. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan.

Funding for this modification had previously been contained in Weapon System Code (WSC) E00300, but as part of OSD's Major Programs Transparency Initiative and starting in FY2015, the AWACS Block 40/45 Upgrade (MDAP) was moved to WSC E34045. Prior year funding and associated quantities remain in WSC E00300. As funding for 13 of the originally planned 24 AWACS Block 40/45 Upgrade shipsets is

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45	<b>Modification Number / Title:</b> 1 / BLOCK 40/45 BLOCK UPGRADE
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<p>included in P-1 Line Item number E00300, this document accounts for the remaining 18 shipsets to complete the full fleet of 31 aircraft. Also, as the first five (5) shipsets installed under E34045 were purchased in FY2012 &amp; FY2014 and are included in P-1 Line Item number E00300, the Installation Schedule reflects a total of 23 modification installs to capture the five (5) shipsets purchased in FY2012 &amp; FY2014 as well as the 18 shipsets purchased under E34045.</p> <p>FY2022 Plan: Program continues to complete block modification upgrades to the 40/45 configuration (E-3G). Two (2) Block 30/35 aircraft (P28, P29) will be inducted to be retrofitted to the Block 40/45 DMS 4.0 baseline configuration. Four (4) aircraft that began modification from Block 30/35 to Block 40/45 in FY2021 (P24, P25, P26, P7), and one (1) Block 30/35 aircraft inducted in FY22 (P28) will be completed in FY2022. The aircraft will be delivered to the 552nd Air Control Wing (ACW) at Tinker AFB, OK, bringing the total Block 40/45 (E-3G) configured aircraft to 28 of the planned total of 31 aircraft to be modified.</p> <p>In FY2022, the Program will also induct eight (8) Block 40/45 aircraft at older DMS baselines (P8, P9, P10, P11, P12, P13, P14, P15) for modification to the DMS 4.0 baseline configuration. As these aircraft were captured upon initial modification to the Block 40/45 configuration, these DMS updates are not captured in the Installation Schedule.</p> <p>The Program will continue to meet emerging cyber security and system integration requirements and continue executing a Performance Based Logistics contract to maintain fielded aircraft and ground support systems. The program will continue to support the 552nd ACW and field support infrastructure at the 962nd Air Control Squadron at Joint Base Elmendorf- Richardson, AK and the 961st Air Control Squadron at Kadena AFB, Japan.</p> <p>Milestone/Development Status</p> <p>11/08 - Completed Aircraft Block 40/45 Development (Milestone C/LRIP), 08/11 - Completed Aircraft Block 40/45 Pre-Production, 11/13 - Completed Development of MCMT, 02/14 - Completed Development of MCTS, 06/14 - Completed Development of DGS/GS, 06/14 - Last (6th) LRIP Jet Delivered, First Production Jet Inducted, 07/14 - IOC Declared by ACC/CC.</p>		

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45			<b>Modification Number / Title:</b> 1 / BLOCK 40/45 BLOCK UPGRADE	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> E-3		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207417F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Block 4045</i>							
A Kits							
Recurring							
Block 4045:INSTALL KITS Group A (Active)	18 / 119.165	- / 0.068	- / -	- / 0.000	- / -	- / 0.000	
<i>Subtotal: Recurring</i>	<i>- / 119.165</i>	<i>- / 0.068</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>	
B Kits							
Recurring							
Block 4045:EQUIPMENT Group B (Active)	- / 109.500	- / 0.017	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	<i>- / 109.500</i>	<i>- / 0.017</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<i>Subtotal: Block 4045</i>	<i>- / 228.665</i>	<i>- / 0.085</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 228.665</i>	<i>- / 0.085</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>	
<b>Support (All Modification Items)</b>							
GROUP B: TOTAL NONRECURRING	- / 88.321	- / -	- / -	- / 0.000	- / -	- / 0.000	
Make New Selection	- / 174.019	- / 11.854	- / 17.162	- / 17.115	- / -	- / 17.115	
Change Orders	- / 5.064	- / 0.760	- / 0.740	- / 0.771	- / -	- / 0.771	
SIM/TRAINER	2 / 38.939	1 / 10.091	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 177.173	- / -	- / -	- / -	- / -	- / -	
ICS-Labor	- / 197.007	- / 3.314	- / 17.515	- / 5.202	- / -	- / 15.202	
OTHER GOVT	- / 124.757	- / 0.141	- / 0.251	- / 0.279	- / -	- / 0.279	
PMA - Other Gov't Costs	- / 17.427	- / 0.624	- / 1.014	- / 0.805	- / -	- / 0.805	
PMA - Contractor Services	- / 126.596	- / 2.991	- / 15.537	- / 6.151	- / -	- / 16.151	
<i>Subtotal: Support</i>	<i>2 / 549.303</i>	<i>1 / 29.775</i>	<i>- / 32.219</i>	<i>- / 20.323</i>	<i>- / -</i>	<i>- / 20.323</i>	
<b>Installation</b>							
<i>Modification Item 1 of 1: Block 4045</i>	14 / 27.171	1 / 2.961	4 / 21.124	2 / 10.004	- / -	2 / 10.004	
<i>Subtotal: Installation</i>	<i>14 / 27.171</i>	<i>1 / 2.961</i>	<i>4 / 21.124</i>	<i>2 / 10.004</i>	<i>- / -</i>	<i>2 / 10.004</i>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>805.139</b>	<b>32.821</b>	<b>53.343</b>	<b>30.327</b>	<b>0.000</b>	<b>30.327</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> E34045 / Airborne Warning and Cntrl Sys (AWACS) 40/45	<b>Modification Number / Title:</b> 1 / BLOCK 40/45 BLOCK UPGRADE
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

**Modification Item 1 of 1:** Block 4045

**Manufacturer Information**

Manufacturer Name: Boeing		Manufacturer Location: Seattle	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 16	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	14 / 27.171	1 / 2.961	4 / 21.124	2 / 10.004	- / -	2 / 10.004
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>14 / 27.171</b>	<b>1 / 2.961</b>	<b>4 / 21.124</b>	<b>2 / 10.004</b>	<b>- / -</b>	<b>2 / 10.004</b>

**Installation Schedule**

	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	14	1	-	-	-	-	1	1	2	-	1	-	1
Out	12	-	-	1	-	1	1	-	-	-	2	1	2

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> FBLOST / Family of Beyond Line-of-Sight Terminals
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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: 0303001F, 0303601F
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**Line Item MDAP/MAIS Code:** 199

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	81.191	7.910	1.573	0.000	-	0.000	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	81.191	7.910	1.573	0.000	-	0.000	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>81.191</b>	<b>7.910</b>	<b>1.573</b>	<b>0.000</b>	<b>-</b>	<b>0.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	6.140	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

In FY2021, P-1 Line Item BP11 FBLOST APPN 3010, BP 11, CLC Family of Beyond Line-Sight Terminals efforts were transferred to Appropriation 3022F, Procurement, Space Force, from Appropriation 3021F due to the creation of a new Appropriation for Space Force.

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and provides Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential and National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability for DoD platforms to include: Strategic platforms and airborne/ground command posts via Milstar; AEHF; and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF and EPS satellite constellations.

The Force Element Terminal (FET) subprogram provides a nuclear survivable terminal capable of communicating with the Milstar and AEHF satellites, and provides for survivable NC3 data transport services (EAM dissemination and force report back) for airborne platforms. The FET is for the B-52 and select RC-135 aircraft and will not provide satellite control or PNVC functionality.

The PNVC capability is a critical element of the Nuclear Command, Control, and Communications (NC3) system. PNVC is the Survivable Emergency Conferencing Network (SECN) replacement capability which provides anti-jam, anti-scintillation, survivable, and endurable voice communications through the AEHF satellite system for national and strategic users. Equipment upgrades required for this system include the development and production of several new components by other organizations, including the Baseband Interface Group (BIG) and Multi-Stream Summing Device (MSD-III) for airborne users.

Programs and projects in the space warfighting enterprise are evaluating ways to maximize innovation, resiliency, and our ability to rapidly respond to known and emerging threats. Space enterprise efforts aim to execute technology risk reduction efforts, integration of new or repurposed capabilities, enterprise decision-making tools, experimentation, and rapid prototyping and fielding via all appropriate acquisition authorities and contract mechanisms.

Funding for this exhibit is contained in PE 1203001F

**Justification:**

FAB-T awarded the terminal buys successfully procuring 23 Airborne Terminals. In FY 2021, the program will continue to support platform install activities, provide Interim Contractor Support for the existing fielded terminals and other support activities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, depot activation (stand-up), ICS, etc.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> FBLOST / Family of Beyond Line-of-Sight Terminals
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0303001F, 0303601F
<b>Line Item MDAP/MAIS Code:</b> 199		

Empty justification area for the budget line item.



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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
H00100 / H-1

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0101235F **Other Related Program Elements:** 0101235F, 0401314F, 0804747F

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

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	40.076	3.817	4.410	1.533	-	1.533	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	40.076	3.817	4.410	1.533	-	1.533	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>40.076</b>	<b>3.817</b>	<b>4.410</b>	<b>1.533</b>	-	<b>1.533</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds modifications to UH-1N and TH-1H aircraft. The two-engine UH-1N is a light, utility helicopter primarily used for missile site and range support and distinguished visitor airlift support. There are 63 UH-1N aircraft in the inventory. They were built with an estimated service life of 10,000 flight hours and are not service limited due to on-going modifications and upgrades. There are 28 TH-1H aircraft in the inventory. They are used in the helicopter track for USAF Specialized Undergraduate Pilot Training. The TH-1H modernization modification provided a service life of 20 years, the last one was delivered in 2013.

Starting in FY19 the UH-1N Service Life Extension Program (SLEP) was added for a portion of the UH-1N fleet to address aging fleet problems to include: structural repairs, replacement of key systems based on structural fatigue, system obsolescence and a diminishing manufacturing industrial base. Additionally, this effort will address safety requirements to include: Federal Aviation Administration, DoD, engineering mandates and configuration changes. This effort includes funding for the UH-1N System Program Office (e.g., A&AS, support, travel). The funds budgeted FY 2019 - 2022 will enable the SLEP of up to 63 aircraft required to meet mission requirements until the MH-139A helicopter is fielded to replace the UH-1N.

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

Funding in this exhibit is contained in PE 0101235F, PE 0401314F, and PE 0804747F.

**Justification:**

Primary efforts in FY 2022 include: UH-1N Service Life Extension Program (SLEP), TH-1H low cost modifications, and UH-1N low cost modifications.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> H06000 / H-60
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0207228F	<b>Other Related Program Elements:</b> 0207224F, 0207228F
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**Line Item MDAP/MAIS Code:** None

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	815.247	26.879	34.728	13.709	-	13.709	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	815.247	26.879	34.728	13.709	-	13.709	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>815.247</b>	<b>26.879</b>	<b>34.728</b>	<b>13.709</b>	-	<b>13.709</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds modifications to the HH-60G helicopter. The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day, night, and marginal weather Combat Search and Rescue (CSAR) in order to recover isolated personnel in hostile or permissive environments. Potential mission areas include casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combatant evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces. The Operational Loss Replacement (OLR) Mission Modification program will deliver the final 2 (of 21) additional aircraft, bringing the fleet size up to 83 by 1st QTR FY22. There are currently 100 aircraft as of 1 May 21 with the remaining 19 of 34 aircraft scheduled for retirement in FY21. The HH-60G is in the sunset period.

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

Funding for this exhibit is contained in PE 0207228F.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.729	33.704	13.709	0.000	13.709	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.150	-	-	0.000	0.000	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	1.024	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> H06000 / H-60
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0207228F	<b>Other Related Program Elements:</b> 0207224F, 0207228F
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**Line Item MDAP/MAIS Code:** None

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	26.879	34.728	13.709	0.000	13.709	-	-	-	-

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
H06000 / H-60

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207224F, 0207228F **Other Related Program Elements:** 0207224F, 0207228F

**Line Item MDAP/MAIS Code:** None

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	8564 / Control Display Unit (CDU) (Capability Improvement)				- / 31.744	- / -	- / -	- / -	- / -	- / -
P-40a***	8565 / Navigation System Upgrade (NSU) (Capability Improvement)				- / 65.492	- / 1.298	- / 1.310	- / -	- / -	- / -
P-40a***	8844 / Multi-function Color Display (Capability Improvement)				- / 43.301	- / 2.610	- / 4.210	- / 1.600	- / -	- / 1.600
P-40a***	8850 / MODE 5 (Capability Improvement)				- / 32.262	- / 2.148	- / 3.624	- / 0.310	- / -	- / 0.310
P-40a***	8852 / CSAR Avionics/Electrical Upgrade (Capability Improvement)				- / 18.037	- / 0.324	- / 0.160	- / -	- / 0.000	- / 0.000
P-40a***	8854 / HH-60 OLR Mission Modifications (Other)				- / 452.721	- / 12.643	- / 1.710	- / 1.570	- / -	- / 1.570
P-40a***	8856 / Block 162 (Service Life Extension)				- / 48.420	- / 3.370	- / 0.250	- / -	- / -	- / -
P-40a***	8859 / DVE Sensor (Capability Improvement)				- / 26.580	- / 3.186	- / 18.200	- / -	- / -	- / -
P-40a***	8861 / HH-60 DATALINKS (Capability Improvement)				- / 27.839	- / 0.550	- / 3.344	- / -	- / -	- / -
P-40a***	8862 / HH-60G Communication Suite Control Integration (Capability Improvement)				- / 5.490	- / -	- / -	- / -	- / -	- / -
P-40a***	99999X / Low Cost Modifications (Other)				- / 7.772	- / 0.750	- / 0.120	- / 2.429	- / -	- / 2.429
P-3a	8853 / DEFENSIVE SYSTEM UPGRADE (Capability Improvement)		A		- / 55.589	- / 0.000	- / 1.800	- / 7.800	- / 0.000	- / 7.800
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 815.247</b>	<b>- / 26.879</b>	<b>- / 34.728</b>	<b>- / 13.709</b>	<b>- / -</b>	<b>- / 13.709</b>

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

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

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

**Justification:**  
Primary efforts in FY 2022 include: Multi Function Color Display (MFCD), Mode 5, HH-60 OLR Mission Modifications, Defensive Systems Upgrade, and Low Cost Modifications.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> H06000 / H-60	<b>Modification Number / Title:</b> 8853 / DEFENSIVE SYSTEM UPGRADE

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	55.589	0.000	1.800	7.800	0.000	7.800
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	55.589	0.000	1.800	7.800	0.000	7.800
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>55.589</b>	<b>0.000</b>	<b>1.800</b>	<b>7.800</b>	<b>0.000</b>	<b>7.800</b>

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

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

**Description:**

Defensive Systems Upgrade is a continuing effort to provide the HH-60G Pave Hawk with the ability to detect, deter, suppress or evade ever-evolving enemy threat systems.

The AAR-47 was procured and installed in the HH-60G in response to a modification proposal directed by AF Form 1067, SOC 10-252, dated 15 September 2010. Rescues performed in combat highlighted the need to modernize the HH-60G's defensive systems, and gave aircrews precise, real-time threat information that was fully integrated with existing defensive systems. AAR-47 Missile Warning Systems were procured and installed in 97 aircraft.

Emerging enemy threats resulted in JUON SO-0010, validated 24 April 2015, which required the DoD to upgrade and rapidly integrate defensive systems on rotary wing aircraft in theater. Distributed Aperture Infrared Countermeasures (DAIRCM), identified in these exhibits as "Missile Warning and Countermeasure Kit is a suite of missile warning, laser warning, hostile fire indicator, and infrared countermeasure (IRCM) components designed to defend the aircraft from various threats to include infrared guided missiles. Hostile Fire Indicator (HFI) alerts the aircrew of rocket propelled grenade or small arms fire, the most common threats encountered in theater. Aircrews will be able to return precise and immediate defensive fire and automatically provide IRCM to effectively deter, suppress, or destroying the enemy threat, or maneuver to avoid the threat as needed.

This program supported procurement and installation 32 countermeasure systems, and two color IR systems to allow for coverage of Operation FREEDOM'S SENTINEL (OFS), Operation INHERENT RESOLVE (OIR), and future operations.

The large amount of Overseas Contingency Operations (OCO) funding received for this JUON in FY19 has covered requirements in FY19 through 21. FY22 funding will be used to continue Interim Contractor Support (ICS) for the 32 aircraft equipped with the Missile Warning and Countermeasure systems.

**Milestone/Development Status**

RDT&E funds are not a component of this effort.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	1.800	7.800	-	7.800
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force			<b>Date:</b> May 2021			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> H06000 / H-60		<b>Modification Number / Title:</b> 8853 / DEFENSIVE SYSTEM UPGRADE		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	0.000	1.800	7.800	0.000	7.800

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> H06000 / H-60			<b>Modification Number / Title:</b> 8853 / DEFENSIVE SYSTEM UPGRADE		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> HH-60G			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
<b>Procurement</b>								
<b>Modification Item 1 of 2: AAR-47 kit</b>								
B Kits								
Recurring								
AAR-47 kit:EQUIPMENT Group B (Active)	65 / 9.783	- / -	- / -	- / -	- / -	- / -		
AAR-47 kit:EQUIPMENT Group B (Guard)	17 / 2.482	- / -	- / -	- / -	- / -	- / -		
AAR-47 kit:EQUIPMENT Group B (Reserve)	15 / 2.190	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 14.455	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: AAR-47 kit</i>	- / 14.455	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 2 of 2: Missile Warning and Counter Measure Kit</b>								
A Kits								
Recurring								
Missile Warning and Counter Measure Kit:INSTALL KITS Group A (Active)	32 / 6.256	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 6.256	- / -	- / -	- / -	- / -	- / -		
B Kits								
Recurring								
Missile Warning and Counter Measure Kit:EQUIPMENT Group B (Active)	32 / 24.000	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 24.000	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Missile Warning and Counter Measure Kit</i>	- / 30.256	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Procurement, All Modification Items</i>	- / 44.711	- / -	- / -	- / -	- / -	- / -		
<b>Support (All Modification Items)</b>								
A&AS	- / 0.144	- / -	- / -	- / 0.300	- / -	- / 0.300		
ICS-Labor	- / 4.000	- / -	- / -	- / 7.500	- / -	- / 7.500		
ICS-Material	- / 4.494	- / -	- / -	- / -	- / -	- / -		
PMA - Other Gov't Costs	- / 0.080	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Support</i>	- / 8.718	- / -	- / -	- / 7.800	- / -	- / 7.800		
<b>Installation</b>								
<b>Modification Item 2 of 2: Missile Warning and Counter Measure Kit</b>	6 / 2.160	10 / 0.000	16 / 1.800	- / -	- / -	- / -		
<i>Subtotal: Installation</i>	6 / 2.160	10 / -	16 / 1.800	- / -	- / -	- / -		



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> H06000 / H-60		<b>Modification Number / Title:</b> 8853 / DEFENSIVE SYSTEM UPGRADE	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HH-60G		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207224F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	55.589	0.000	1.800	7.800	0.000	7.800

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> H06000 / H-60	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 2:</b> AAR-47 kit			
<b>Manufacturer Information</b>			
Manufacturer Name: ATK		Manufacturer Location: Clearwater FL	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 97	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> H06000 / H-60	<b>Modification Number / Title:</b> 8853 / DEFENSIVE SYSTEM UPGRADE
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** Missile Warning and Counter Measure Kit

**Manufacturer Information**

Manufacturer Name: DRS	Manufacturer Location: FL
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 8
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	6 / 2.160	10 / 0.000	16 / 1.800	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	6 / 2.160	10 / 0.000	16 / 1.800	- / -	- / -	- / -

**Installation Schedule**

PYS	Q1	FY 2020				FY 2021				FY 2022			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	6	3	3	4	-	4	4	4	4	-	-	-	-
Out	6	3	3	4	-	4	4	4	4	-	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0305220F	<b>Other Related Program Elements:</b> 0305220F
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**Line Item MDAP/MAIS Code:** 252

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	629.864	1.704	3.350	3.205	-	3.205	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	629.864	1.704	3.350	3.205	-	3.205	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>629.864</b>	<b>1.704</b>	<b>3.350</b>	<b>3.205</b>	<b>-</b>	<b>3.205</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Initial Spares ( <i>\$ in Millions</i> )	2.160	0.746	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

The RQ-4 System provides high altitude, deep look, long-endurance Intelligence, Surveillance, and Reconnaissance (ISR) capability that complements space and other airborne collectors during peacetime, crisis, and war-fighting scenarios. The aircraft is an autonomous, high altitude, long-endurance, Remotely Piloted Aircraft (RPA). Currently, the active inventory consists of four (4) Block 20s which have been converted to Battlefield Airborne Communications Nodes (BACN), twenty (20) Block 30s, and ten (10) Block 40s. The ground segment includes the Mission Control Element (MCE) and the Launch Recovery Element (LRE). There are a total of twenty-one (21) active ground segments in the existing RQ-4 inventory. The RQ-4 program will incorporate applicable synergies with other platforms, including the U.S. Navy Triton, and other RPA weapon systems.

The designed service life of the Block 30 RPAs is approximately 25 years with an average service life remaining of 13 years through 2032. The designed service life of the Block 40 RPAs is approximately 25 years with an average service life remaining of 15 years through 2034. The Program Office is exploring options to extend the service life.

The RQ-4B is the successor to the RQ-4A, and is designed to employ 3,000 pounds of payload and enable multi-intelligence (multi-INT) collecting. The RQ-4B has three configurations: Block 20, Block 30, and Block 40. Of the six (6) Block 20s that were built, four (4) remain and have since been converted to BACN. The Block 30 employs upgraded Synthetic Aperture Radar (SAR) and Electro-Optical/Infrared (EO/IR) sensors - Enhanced Integrated Sensor Suite (EISS) and integrates a wide spectrum signals intelligence (SIGINT) sensor, the Airborne Signals Intelligence Payload (ASIP). EISS and ASIP are used simultaneously to create a multi-INT platform. Additionally, the Block 30 are being equipped with an ISR Payload Adapter that enables the utilization of the MS-177 multi-spectral sensor which is the next generation of the Senior Year Electro-optical Reconnaissance-2(SYER-2) sensor currently flown on the U-2. The Block 40 integrates the Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar that has Ground Moving Target Indicator (GMTI) capability. The ground segment includes the Mission Control Element (MCE) and the Launch Recovery Element (LRE). The support segment includes aerospace ground equipment, tech orders, spares, support equipment, and training to enable operation of the RQ-4 System.

To protect production schedules from Diminishing Manufacturing Sources (DMS) and material shortages issues, the program will perform schedule protection buys when appropriate. Funding may be used to alleviate DMS issues for which there are not sufficient Government spares and/or the ability to repair organically or commercially is not viable.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0305220F	<b>Other Related Program Elements:</b> 0305220F
<b>Line Item MDAP/MAIS Code:</b> 252		
<p>The RQ-4 system will be continually modified to maintain pace with evolving threats and increasing capabilities included in modernization efforts. FY22 funds will support modification efforts to include aircraft mods, included aircraft sensor mods, trainers, on-board data storage, low cost modifications, retrofit support planning, change requests, structural modifications required to bring the Global Hawk aircraft up to current configurations, support equipment, other modification efforts to upgrade the Global Hawk fleet, as well as technology insertion activities in support of Better Buying Power initiatives.</p> <p>Funding for this exhibit is contained in PE 0305220F.</p>		

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
HAWK00 / RQ-4 Mods

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0305220F **Other Related Program Elements:** 0305220F

**Line Item MDAP/MAIS Code:** 252

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	470001 / GH Aircraft Mods (Capability Improvement)		B		- / 532.794	- / 1.704	- / 3.350	- / 3.205	- / 0.000	- / 3.205
P-3a	470003 / GH Ground Station Mods (Capability Improvement)		A		- / 15.523	- / -	- / -	- / -	- / -	- / -
P-3a	470009 / ASIP Increment I (Capability Improvement)		B		- / 37.154	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	470010 / SAR (Capability Improvement)		A		- / 0.910	- / -	- / -	- / -	- / -	- / -
P-3a	470011 / ASIP Install/Calibration (Capability Improvement)		A		- / 4.834	- / -	- / -	- / -	- / -	- / -
P-3a	470012 / MODE 5/ADS-B (Capability Improvement)		B		- / 6.267	- / 0.000	- / 0.000	- / -	- / -	- / -
P-3a	470013 / Sensor Enhancements (Capability Improvement)		A		- / 29.382	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	470019 / Communication Interoperability/Enhancements (Capability Improvement)		A		- / 3.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 629.864</b>	<b>- / 1.704</b>	<b>- / 3.350</b>	<b>- / 3.205</b>	<b>- / -</b>	<b>- / 3.205</b>

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

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

**Justification:**  
The actions identified are minimal expected to support operations for remaining system life (i.e. comms work) and close out work already begun in prior years.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470001 / GH Aircraft Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	532.794	1.704	3.350	3.205	0.000	3.205
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	532.794	1.704	3.350	3.205	0.000	3.205
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>532.794</b>	<b>1.704</b>	<b>3.350</b>	<b>3.205</b>	<b>0.000</b>	<b>3.205</b>

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

Initial Spares ( <i>\$ in Millions</i> )	0.091	0.746	0.000	0.000	-	0.000
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

The Global Hawk System provides high altitude, deep look, long-endurance intelligence, surveillance, and reconnaissance (ISR) capability that complements space and other airborne collectors during peacetime, crisis, and war-fighting scenarios. The aircraft is an autonomous, high altitude, long-endurance, unmanned aircraft system (UAS) and must maintain interoperability with government and commercial communications systems and exploitation nodes within the AF and other DoD systems. The Global Hawk program will incorporate applicable synergies with other platforms, including the U.S. Navy's Triton, and other remotely piloted aircraft (RPA) weapon systems.

Planned modifications include aircraft, payload, ground station/communications, and other retrofits to incorporate/modify capabilities and maintain interoperability across the RQ-4 mission area for expected service life. Air Vehicle modifications are written to the Line Replaceable Unit (LRU) level, not the overarching Total Aircraft Breakdown.

This Mod to increase reliability and mission capability will cover change requests, retrofit planning, Diminishing Manufacturing Source (DMS) and Reliability and Maintainability (R&M) retrofits, Integrated Functional Capability (IFC) retrofits, trainers, contested environment initiatives, inflight mission planning updates, test support, support equipment, studies, other government costs, and program support. This Mod may be used to cover the efforts required to bring the early production aircraft up to the current operational configuration.

Requirement source: Air Combat Command.

Milestone/Development Status

The RQ-4 program will continue to develop, test and implement aircraft, sensor, communications and ground station performance, interoperability, sustainability and safety enhancements and solutions for implementation on the RQ-4 platform and ground based systems in an effort to maintain and improve aircraft and payload availability effectiveness and reduce life-cycle costs.



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods			<b>Modification Number / Title:</b> 470001 / GH Aircraft Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> RQ-4			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: Global Hawk Air Craft Mods</i>							
A Kits							
Recurring							
Global Hawk Air Craft Mods:INSTALL KITS Group A (Active)	67 / 3.811	- / -	- / -	- / 3.205	- / -	- / 3.205	
<i>Subtotal: Recurring</i>	- / 3.811	- / -	- / -	- / 3.205	- / -	- / 3.205	
B Kits							
Recurring							
Global Hawk Air Craft Mods:EQUIPMENT Group B (Active)	67 / 359.226	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 359.226	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Global Hawk Air Craft Mods</i>	- / 363.037	- / -	- / -	- / 3.205	- / -	- / 3.205	
<i>Subtotal: Procurement, All Modification Items</i>	- / 363.037	- / -	- / -	- / 3.205	- / -	- / 3.205	
<b>Support (All Modification Items)</b>							
Change Orders	- / 142.888	- / -	- / 1.972	- / -	- / -	- / -	
Mod of Spares	9 / 0.875	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 5.731	- / 1.704	- / 1.378	- / -	- / -	- / -	
<i>Subtotal: Support</i>	9 / 149.494	- / 1.704	- / 3.350	- / -	- / -	- / -	
<b>Installation</b>							
<i>Modification Item 1 of 1: Global Hawk Air Craft Mods</i>							
<i>Subtotal: Installation</i>	67 / 20.263	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>532.794</b>	<b>1.704</b>	<b>3.350</b>	<b>3.205</b>	<b>0.000</b>	<b>3.205</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470001 / GH Aircraft Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Global Hawk Air Craft Mods

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	67 / 20.263	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	67 / 20.263	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	67	0	0	0	0	0	0	0	0	0	0	0
Out	67	0	0	0	0	0	0	0	0	0	0	0

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470003 / GH Ground Station Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	15.523	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	15.523	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>15.523</b>	-	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	0.000	-	0.000
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

Mod 470003 included small modifications for the Global Hawk Ground Segment system.

Any small modifications will be addressed in the Low Cost Mod line (99999X) or other Mod line.

Milestone/Development Status

Development concluded in prior years.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods		<b>Modification Number / Title:</b> 470003 / GH Ground Station Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RQ-4		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305220F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Ground Station Mods						
B Kits						
Recurring						
Ground Station Mods:EQUIPMENT Group B (Active)	19 / 14.100	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 14.100	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Ground Station Mods</i>	- / 14.100	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 14.100	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 0.523	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 0.523	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Ground Station Mods						
<i>Subtotal: Installation</i>	19 / 0.900	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>15.523</b>	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470003 / GH Ground Station Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Ground Station Mods

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, CA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 2

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	19 / 0.900	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	19 / 0.900	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	19		-	-	-	-	-	-	-	-	-	-	-	-
	19		-	-	-	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470009 / ASIP Increment I
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	37.154	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	37.154	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>37.154</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

Airborne Signals Intelligence Payload (ASIP) Increment 1 incorporated additional signals and integrated advanced collection algorithms providing increased mission capability. It was a follow-on effort to the ASIP baseline program in compliance with SIGINT Capability Working Group priorities. The retrofit task implemented using the rotatable spares concept.

**Milestone/Development Status**

Development concluded in prior years.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods			<b>Modification Number / Title:</b> 470009 / ASIP Increment I	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RQ-4			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0305220F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0305220F	- / 0.807	- / -	- / -	- / -	- / -	- / -	
<b>Procurement</b>							
<b>Modification Item 1 of 1:</b> Group A Install Kits							
A Kits							
Recurring							
Group A Install Kits:INSTALL KITS Group A (Active)	15 / 1.895	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 1.895</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
B Kits							
Recurring							
Group A Install Kits:EQUIPMENT Group B (Active)	15 / 17.054	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 17.054</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Group A Install Kits</b>	<b>- / 18.949</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 18.949</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / 3.046	- / -	- / -	- / -	- / -	- / -	
Mod of Spare	15 / 15.159	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Support</b>	<b>15 / 18.205</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Installation</b>							
<b>Subtotal: Installation</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>37.154</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	
<b>Modification Number / Title:</b> 470009 / ASIP Increment I		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 1 of 1:</b> Group A Install Kits	
<b>Manufacturer Information</b>			
Manufacturer Name: Northrop Grumman		Manufacturer Location: Palmdale, California	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 15	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470010 / SAR
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.910	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.910	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.910</b>	-	-	-	-	-

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

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

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

Synthetic Aperture Radar (SAR) incorporates SAR selectable Point Image Mode, for Detected and Complex Imagery into the Enhanced Integrated Sensor Suite (EISS). Software was developed and incorporated into fielded Global Hawk Integrated Functional Capability (IFC) 4.0.1.1. This modification was implemented on all Block 20 and Block 30 aircraft to include necessary revisions to the technical documentation. The major effort for this modification was updating the Phase Distortion Tables (PDT) of the Enhanced Receiver Exciter Controller (EREC).

**Milestone/Development Status**

Development concluded in prior years.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470010 / SAR

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> RQ-4	<b>Modification Type:</b> Capability Improvement	<b>Related RDT&amp;E PEs:</b> 0305220F
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Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Group B Calibration/ Installation						
B Kits						
Recurring						
Group B Calibration/Installation:EQUIPMENT Group B (Active)	44 / 0.910	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.910	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Group B Calibration/Installation</i>	- / 0.910	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.910	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Group B Calibration/Installation	44 / 0.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	44 / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.910</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470010 / SAR
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Group B Calibration/Installation

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 1

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	44 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	44 / 0.000	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	44		-	-	-	-	-	-	-	-	-	-	-	-
	44		-	-	-	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470011 / ASIP Install/Calibration
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	4.834	-	-	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	4.834	-	-	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>4.834</b>	-	-	-	-	-

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

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

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

The program planned to convert all Block 30I air vehicles into Block 30M (Airborne Signals Intelligence Payload (ASIP) capable) air vehicles to meet Air Combat Command (ACC) requirements. The original retrofit plan was to convert eleven (11) Block 30I air vehicles into Block 30M capable air vehicles; however, this effort was halted by PB13. As a result, only three (3) of the eleven (11) Block 30Is were retrofitted. Subsequently, the remaining Block 30Is were to be retrofitted to Block 30M capable in a subsequent modification program. The funding was utilized to install and calibrate the ASIP units in the retrofitted Block 30M aircraft.

**Milestone/Development Status**

Development concluded in prior years.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods			<b>Modification Number / Title:</b> 470011 / ASIP Install/Calibration	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> RQ-4		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0305220F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Grp A Install Kits (2)							
A Kits							
Recurring							
Grp A Install Kits:INSTALL KITS Group A (Active)	6 / 0.920	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.920	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Grp A Install Kits (2)</i>	- / 0.920	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.920	- / -	- / -	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
Change Orders	- / 2.955	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / 2.955	- / -	- / -	- / -	- / -	- / -	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Grp A Install Kits (2)	6 / 0.959	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Installation</i>	6 / 0.959	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>4.834</b>	-	-	-	-	-	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470011 / ASIP Install/Calibration
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Grp A Install Kits (2)

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, CA
Administrative Leadtime (in Months): 12	Production Leadtime (in Months): 3

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	6 / 0.959	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	6 / 0.959	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470012 / MODE 5/ADS-B

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	6.267	0.000	0.000	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	6.267	0.000	0.000	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>6.267</b>	<b>0.000</b>	<b>0.000</b>	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

Mode 5 is an enhancement to the legacy Mode 4 Identification, Friend or Foe (IFF) which has been in use since the mid-1950s for military identification. Mode 5 provides four graduated levels of data transmission with enhanced security protection and technology advances and includes question and answer identification/classified interrogation, position reporting capability, selective interrogation, and data exchange capability.

Automatic Dependent Surveillance-Broadcast (ADS-B) is a function for air vehicles that periodically transmits its state vector (positions/velocities) and other information to air traffic controllers. This allows air traffic controllers to know where the platform is as it enters a specific air space. Mode S, which gives more detailed information on the identity of aircraft to the air traffic controller, is also being implemented with this upgrade as part of the IFF hardware. ADS-B supports improved use of airspace and enhanced safety, and is required for use in the European theater by the International Civil Aviation Organization (European FAA). The Federal Aviation Administration (FAA) and DoD have mandated implementation by December 2024.

This program will retrofit fielded aircraft with Mode 5 by the end of Fiscal Year 2022.

**Milestone/Development Status**

Contract was awarded Mar 2016. Development is underway with a projected 38-month period of performance. The development will progress to a stage where the Contractor will be able to release documentation to commence kitting for retrofit. Therefore, certain retrofit activities began prior to full completion of development effort.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods		<b>Modification Number / Title:</b> 470012 / MODE 5/ADS-B	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RQ-4		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305220F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0305220F	- / 2.303	- / -	- / -	- / -	- / -	- / -
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> Grp B Equipment						
B Kits						
Recurring						
Grp B Equipment:EQUIPMENT Group B (Active)	34 / 5.327	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 5.327	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Grp B Equipment</i>	- / 5.327	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 5.327	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<b>Modification Item 1 of 1:</b> Grp B Equipment						
	34 / 0.940	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	34 / 0.940	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>6.267</b>	<b>0.000</b>	<b>0.000</b>	-	-	-



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470012 / MODE 5/ADS-B
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Grp B Equipment

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime (in Months): 10	Production Leadtime (in Months): 1

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 0.940	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>34 / 0.940</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	34		-	-	-	-	-	-	-	-	-	-	-	-
	34		-	-	-	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470013 / Sensor Enhancements
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	29.382	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	29.382	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>29.382</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

This modification program includes the purchase and installation of Intelligence, Surveillance and Reconnaissance (ISR) Payload Adapters (IPAs), interface harnessing, Interchangeable Fairings (ICFs), as well as other related sensor enhancements. This Mod reflects nine (9) Blk 30 air vehicles to be retrofitted. IPAs provide a common air vehicle physical interface with an Open Mission Systems (OMS) software layer for payloads, which is expected to provide reduced cost and schedule air vehicle integration. IPAs to be installed on Airborne Signals Intelligence Payload (ASIP) capable aircraft.

**Milestone/Development Status**

Development concluded in prior years.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods			<b>Modification Number / Title:</b> 470013 / Sensor Enhancements	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RQ-4			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0305220F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>							
<i>Modification Item 1 of 1: Grp B Equipment (2)</i>							
A Kits							
Recurring							
Grp B Equipment:INSTALL KITS Group A (Active)	3 / 3.621	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 3.621	- / -	- / -	- / -	- / -	- / -	- / -
B Kits							
Recurring							
Grp B Equipment:EQUIPMENT Group B (Active)	3 / 5.758	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 5.758	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Grp B Equipment (2)</i>	- / 9.379	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 9.379	- / -	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>							
OTHER GOVT							
Change Orders	- / 4.551	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 9.909	- / -	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>							
<i>Modification Item 1 of 1: Grp B Equipment (2)</i>							
	3 / 10.094	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	3 / 10.094	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>29.382</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5				<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods				<b>Modification Number / Title:</b> 470013 / Sensor Enhancements					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 1 of 1:</b> Grp B Equipment (2)													
<b>Manufacturer Information</b>													
Manufacturer Name: Northrop Grumman							Manufacturer Location: Palmdale, California						
Administrative Leadtime (in Months): 10							Production Leadtime (in Months): 1						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates													
Delivery Dates													
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contract Field Team													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		3 / 10.094		- / -		- / -		- / -		- / -		- / -	
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		3 / 10.094		- / -		- / -		- / -		- / -		- / -	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	3	0	0	0	0	0	0	0	0	0	0	0	-
Out	3	0	0	0	0	0	0	0	0	0	0	0	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470019 / Communication Interoperability/ Enhancements

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3.000	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	3.000	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>3.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

USAF plans to begin divestment of the Block 20 aircraft in FY21 and the Block 30 aircraft in FY22. To maximize value to the USAF and DoD, efforts will be pivoted to focus on supporting the Block 40 fleet and Block 30 closeout actions.

In order to support multiple worldwide missions for remote split operations (RSO), a long-term SATCOM reach back capability is required. RSO dictate the need for a secure SATCOM C3 long-haul transmission capability enabling the physical separation of the SATCOM wideband antenna from the Mission Control Element (MCE). This solution must support use of all Ku and Extended Tether Pod (ETP) antennae authorized for use with Global Hawk. The expected result of this capability allows the transmission of C3 over existing long haul circuitry using Asynchronous Transfer Mode (ATM) and Ethernet, enabling the needed geographical separation required to conduct worldwide RSO.

In order to accommodate the communication interoperability/enhancements long term technical solution for reach-back monitoring and address the diminishing manufacturing source (DMS) for the AP4000, there's a need for a reach-back capability upgrade pair that replaces both the AP4000 and Broadmore 500.

This project will replace the AP4000 and Broadmore 500s in the MCEs and Launch Recovery Elements (LRE) with a pair of reach-back capability upgrades. This will address the short term diminishing manufacturing source for the AP4000s and also enable a long term technical solution for reach-back monitoring.

The Global Hawk Program office has an existing relationship with the Space and Naval Warfare Systems Command (SPAWAR), which will allow for the fastest and least expensive method to purchase and install the equipment. Funding will also be used to update documentation through the Contractor.

SPAWAR will purchase all equipment, parts, and materials required for ten (10) upgrades.

The Program Office will upgrade legacy GH Ultra High Frequency (UHF) communications to satisfy USAF operational effectiveness, suitability, and flexibility objectives. This effort retrofits GH air vehicles, cockpits, and associated communication system equipment.

**Milestone/Development Status**

Development installation, test, and checkout to be accomplished in 2018 and early 2019. The production assets can be purchased prior to full completion of development work.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods		<b>Modification Number / Title:</b> 470019 / Communication Interoperability/ Enhancements	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> RQ-4		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0305220F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Group B Equipment						
A Kits						
Recurring						
Group B Equipment:INSTALL KITS Group A (Active)	34 / 0.450	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 0.450</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
B Kits						
Recurring						
Group B Equipment:EQUIPMENT Group B (Active)	34 / 1.750	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 1.750</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Group B Equipment</i>	<i>- / 2.200</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 2.200</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Support (All Modification Items)</b>						
Change Orders						
	- / 0.500	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	<i>- / 0.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Group B Equipment						
	34 / 0.300	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>34 / 0.300</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>3.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HAWK00 / RQ-4 Mods	<b>Modification Number / Title:</b> 470019 / Communication Interoperability/ Enhancements

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Group B Equipment

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Palmdale, California
Administrative Leadtime (in Months): 10	Production Leadtime (in Months): 1

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 0.300	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	34 / 0.300	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	34	-	-	-	-	-	-	-	-	-	-	-	-
Out	34	-	-	-	-	-	-	-	-	-	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0207230F	<b>Other Related Program Elements:</b> 0207224F, 0207230F
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**Line Item MDAP/MAIS Code:** 257

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	322.556	41.820	76.573	150.263	-	150.263	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	322.556	41.820	76.573	150.263	-	150.263	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>322.556</b>	<b>41.820</b>	<b>76.573</b>	<b>150.263</b>	<b>-</b>	<b>150.263</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

HC/MC-130 Recapitalization will replace and augment the aging USAF fleets of combat rescue HC-130P/N, special operations MC-130E/P/H and AC-130H/U/W aircraft which are experiencing airworthiness, maintainability and operational limitations. This program provides a common baseline configuration aircraft.

The HC-130J aircraft provides combat search and rescue infiltration and exfiltration including aerial refueling of aircraft in combat search and rescue operations as well as acting as an airborne command post during rescue operations. The MC-130J can provide specialized mobility capability to position, supply, re-supply and recover specialized ground tactical units. This funding will support studies to reduce potential risks, potential Diminishing Manufacturing Sources (DMS) and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. The designed service life is 30 years and the average service life remaining for an HC-130J is 26.07 years and for an MC-130J is 25.15 years.

The modifications budgeted in FY21 will improve the reliability, maintainability, safety, mission performance, reduce logistics costs, and implement fleet upgrades and enhancements to meet emerging requirements for the HC/MC-130J aircraft and associated training systems. This modification permits the initiation and employment of rapid acquisition authorities to respond to emerging threats and requirements as needed.

Funding for this exhibit is contained in PE 0207224F (HC-130J) and PE 0207230F (MC-130J).

FY21 funding totals 58.02M for Overseas Contingency Operations.

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AF	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	41.820	76.573	134.393	-	134.393	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	15.870	-	15.870	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force							<b>Date:</b> May 2021		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft					<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> 0207224F, 0207230F			<b>Other Related Program Elements:</b> 0207224F, 0207230F			
<b>Line Item MDAP/MAIS Code:</b> 257									

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	41.820	76.573	150.263	-	150.263	-	-	-	-

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**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
HCMC00 / HC/MC-130 Modifications

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207224F, 0207230F **Other Related Program Elements:** 0207224F, 0207230F

**Line Item MDAP/MAIS Code:** 257

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	8761 / MC/AC-Communications Modernization Phase I (Capability Improvement)				- / -	- / -	- / -	- / 1.937	- / -	- / 1.937
P-40a***	99999Y / MC-Low Cost Modifications (Other)				- / -	- / -	- / -	- / 0.500	- / -	- / 0.500
P-3a	5222 / HC/MC-130J Block 8.1 (Capability Improvement)		B		- / 9.492	- / 0.000	- / 0.000	- / 15.870	- / 0.000	- / 15.870
P-3a	8632 / MC-130J Increment 2 (Capability Improvement)		A		- / 39.379	- / 0.000	- / 0.000	- / 0.285	- / 0.000	- / 0.285
P-3a	8634 / HC-130J Common Configuration (Capability Improvement)		A		- / 44.809	- / 0.000	- / 0.574	- / 0.001	- / 0.000	- / 0.001
P-3a	8635 / HC-130J Personnel Locator System (Capability Improvement)		B		- / 17.468	- / 0.000	- / 2.021	- / 0.003	- / 0.000	- / 0.003
P-3a	8636 / HC-130J Situational Awareness (Capability Improvement)		B		- / 66.966	- / 15.349	- / 22.521	- / 2.837	- / 0.000	- / 2.837
P-3a	8639 / Wireless Intercom (Capability Improvement)		B		- / 11.759	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8642 / (AbMN) Airborne Mission Networking (Capability Improvement)		A		- / 25.576	- / 26.471	- / 16.771	- / 45.195	- / 0.000	- / 45.195
P-3a	8648 / ADS-B out Acceleration (Capability Improvement)		A		- / 2.175	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8652 / (RFCM) Radio Frequency Countermeasures (Capability Improvement)		B		- / 62.529	- / 0.000	- / 28.900	- / 0.000	- / 0.000	- / 0.000
P-3a	8658 / Paratroop Door (Capability Improvement)		B		- / 24.500	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8659 / Broadband Antenna (Capability Improvement)		B		- / 9.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8762 / MC-130J Link 16 (Capability Improvement)		B		- / 0.000	- / 0.000	- / 4.420	- / 0.000	- / 0.000	- / 0.000
P-3a	8764 / Trainer Modifications (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 83.617	- / 0.000	- / 83.617
P-3a	1 / HC- Low Cost Modifications (Safety)		A		- / 8.503	- / 0.000	- / 1.366	- / 0.018	- / 0.000	- / 0.018
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 322.556</b>	<b>- / 41.820</b>	<b>- / 76.573</b>	<b>- / 150.263</b>	<b>- / -</b>	<b>- / 150.263</b>

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

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

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

**Justification:**  
 This program, P-3A Mod 5222, HC/MC-130J Block 8.1, is a new start.  
 This program, P-3A Mod 8632, MC-130J Increment 2, is a new start.  
 This program, P-3A Mod 8761, MC/AC-Communications Modernization Phase I, is a new start.  
 This program, P-3A Mod 8764, Trainer Modifications, is a new start.  
 This program, P-3A Mod 99999Y, MC-Low Cost Modifications, is a new start.

Primary efforts in FY 2022 include: HC/MC-130J Block 8.1, HC-130J Situational Awareness, AbMN Airborne Mission Networking, MC/AC-Communication Modernization Phase I, and Trainer Modifications.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date: May 2021</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 5222 / HC/MC-130J Block 8.1

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9.492	0.000	0.000	15.870	0.000	15.870
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	9.492	0.000	0.000	15.870	0.000	15.870
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>9.492</b>	<b>0.000</b>	<b>0.000</b>	<b>15.870</b>	<b>0.000</b>	<b>15.870</b>

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

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

**Description:**

This program, P-3A Mod 5222, HC/MC-130J Block 8.1, is a new start.

This program funds unique HC-130J integration requirements for the Block 7.0/8.1 program. The C-130J Program (PE 0401132F) provides the Block 7.0/8.1 requirements that are common to all C-130J aircraft. The program will deliver Communication, Navigation and Surveillance/Air Traffic Management (CNS/ATM) capabilities required for compliance with evolving international standards, thereby allowing HC-130J aircraft to operate in international airspace. It also incorporates but is not limited to capabilities such as a new Flight Management System (FMS), Civil GPS Navigation and Data Link, Transponder including Identification Friend or Foe (IFF), Automatic Dependent Surveillance-Broadcast Out (ADS-B Out), Link-16 and 4th Communications/Navigation/Identification Management Unit (CNI-MU). This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

In 2018 the USAF significantly revamped its HC-130J Block 7.0/8.1. upgrade strategy. The MC-130J was de-scoped from the current Block 7.0/8.1 program to allow the MC 130J to prioritize other (SOCOM-funded) modifications while allowing Air Combat Command (ACC) to move forward with Block 7.0/8.1 on the HC-130J.

The HC-130J Block 7.0/8.1 modification upgrade falls under the ACAT 1C HC/MC-130J Recapitalization Program currently but is being stood up as a separate ACAT III program. The HC-130J Block 7.0/8.1 retrofit installation program funds the Group A kits, installation of retrofit kits, delta kit components, and associated trainer efforts. The Common Core Group B kits are funded in the C-130J Block 7.0/8.1 program.

ACC plans to field the newest datalink solution, Link-16 MIDS JTRS once the development program is completed. The Combat System Operator (CSO) 2.5 Station will be accelerated to meet dependent program schedule requirements and operational interoperability requirements under the Defensive System Suite Program.

The USAF will be fielding Combat System Operator (CSO) 2.5 Station (under the Defensive System Suite Program) portion of Block 7.0/8.1 separately accelerating install of this capability to meet dependent program schedule requirements and operational interoperability requirements.

This program will retrofit 39 HC-130Js. To date, the program has acquired 5 kits (one using RDT&E funds, 3 for production installation, and 1 spare). Funding is programmed in FY22 to complete 3 Gabreski ANG aircraft. The program for the remainder of the HC Fleet is currently paused until more funds are programmed. Disconnects are being worked in the POM process.

**Milestone/Development Status**

HC-130J Block 7.0/8.1 Trial Kit Install RDT&E project started in FY16 to be completed in FY21.

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 5222 / HC/MC-130J Block 8.1
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	15.870	-	15.870
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>0.000</b>	<b>15.870</b>	<b>0.000</b>	<b>15.870</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 5222 / HC/MC-130J Block 8.1	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> HC-130J, MC-130J, AC-130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> CSO 2.5 (Crew Station Operation)							
A Kits							
Recurring							
CSO 2.5 (Crew Station Operation):INSTALL KITS Group A (Guard)	3 / 9.492	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 9.492	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: CSO 2.5 (Crew Station Operation)</i>	- / 9.492	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 9.492	- / -	- / -	- / -	- / -	- / -	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> CSO 2.5 (Crew Station Operation)							
	- / -	- / -	- / -	3 / 15.870	- / -	3 / 15.870	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	3 / 15.870	- / -	3 / 15.870	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>9.492</b>	<b>0.000</b>	<b>0.000</b>	<b>15.870</b>	<b>0.000</b>	<b>15.870</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 5222 / HC/MC-130J Block 8.1
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** CSO 2.5 (Crew Station Operation)

**Manufacturer Information**

Manufacturer Name: Lockheed Martin Aeronautics	Manufacturer Location: Marietta, Georgia
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Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 24
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	3 / 15.870	- / -	3 / 15.870
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	3 / 15.870	- / -	3 / 15.870

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8632 / MC-130J Increment 2

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	39.379	0.000	0.000	0.285	0.000	0.285
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	39.379	0.000	0.000	0.285	0.000	0.285
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>39.379</b>	<b>0.000</b>	<b>0.000</b>	<b>0.285</b>	<b>0.000</b>	<b>0.285</b>

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

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

**Description:**

This program, P-3A Mod 8632, MC-130J Increment 2, is a new start.

The MC-130J Increment 2 modification brings 10 MC-130J Increment 1 aircraft up to the baseline Increment 2 configuration. Current funding includes but is not limited to completing the total requirement of 10 aircraft modifications, adding LAIRCM Group A provisions, crashworthy loadmaster seats, increased electrical power, installation of specific enhanced situational awareness modifications, modifying MC-130J training systems. Additionally, this funding request includes, but is not limited to, supporting any safety of flight issues identified during the modification, OFP builds, training requirements, and potential DMS, to include life of type buys or bridge buys limited to the program of record quantity. It also provides for the installation of specific SOF/PR modifications to the MC-130J aircraft such as, the Option X and Continuous Improvement Program (CIP) Modifications. Option X modification includes adding a fourth Communication, Navigation, Identification - Management Unit (CNI-MU) and associated wiring harnesses to MC-130J aircraft. CIP modification includes upgrading the Multi-Spectral Targeting System-A (MTS-A), Legacy Turret Unit and Electrical Unit to the MC-130J aircraft.

Installations in FY22 and FY23 are MC CIP and Option X installations due to COVID-19 pandemic delays. The installation schedule is notional. The Depot Field Teams (DFT) coordinate installations with the units as aircraft availability permits.

8 MC-130J Increment 1 aircraft have been delivered to units as Increment 2. All remaining kits were delivered by 9 Jun 2020.

7 MC-130J Option X modifications have been delivered. All remaining kits will be delivered by 30 Sep 2023.

33 MC-130J CIP upgraded modifications have been delivered. All remaining kits will be delivered by 31 Mar 2025.

**Milestone/Development Status**

Increment 2 development is complete.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	-	0.285	-	0.285
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>0.000</b>	<b>0.285</b>	<b>0.000</b>	<b>0.285</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8632 / MC-130J Increment 2	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Inc 1-2							
A Kits							
Recurring							
Inc 1-2:INSTALL KITS Group A (Active)							
	40 / 20.780	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>							
	- / 20.780	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Inc 1-2</i>							
	- / 20.780	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>							
	- / 20.780	- / -	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>							
Change Orders							
	- / 1.227	- / -	- / -	- / -	- / -	- / -	- / -
SIM/TRAINER							
	5 / 8.694	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>							
	5 / 9.921	- / -	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Inc 1-2							
	25 / 8.678	5 / 0.000	- / -	10 / 0.285	- / -	10 / 0.285	10 / 0.285
<i>Subtotal: Installation</i>							
	25 / 8.678	5 / 0.000	- / -	10 / 0.285	- / -	10 / 0.285	10 / 0.285
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>							
	<b>39.379</b>	<b>0.000</b>	<b>0.000</b>	<b>0.285</b>	<b>0.000</b>	<b>0.285</b>	<b>0.285</b>

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8632 / MC-130J Increment 2
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 1:** Inc 1-2

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Marietta GA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	25 / 8.678	5 / 0.000	- / -	10 / 0.285	- / -	10 / 0.285
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	25 / 8.678	5 / 0.000	- / -	10 / 0.285	- / -	10 / 0.285

**Installation Schedule**

PYS	Q1	FY 2020				FY 2021				FY 2022			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	25	1	2	1	1	-	-	-	-	-	4	4	2
Out	25	1	2	1	1	-	-	-	-	-	1	4	4

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8634 / HC-130J Common Configuration

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	44.809	0.000	0.574	0.001	0.000	0.001
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	44.809	0.000	0.574	0.001	0.000	0.001
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>44.809</b>	<b>0.000</b>	<b>0.574</b>	<b>0.001</b>	<b>0.000</b>	<b>0.001</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The HC/MC-130J Common Configuration/Block Upgrade modifications includes upgrades to the Legacy Turret Units (TU) and Electronic Units (EU) and software which includes Removable Memory Module (RMM) cards with combined Option X and Continuous Improvement Program-1 (CIP-1) software as part of the CIP-1 Program. Option X program includes adding an additional fourth Communication, Navigation, Identification, Management Unit (CNI-MU) and associated wiring harness sets. This includes but is not limited to the support of retrofits, correction of deficiency report items identified during production, modifying HC/MC-130J training systems, supporting Operational Flight Program (OFP) builds, potential Diminishing Manufacturing Source (DMS) and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Common Configuration/Block Upgrade modifications brought the first two HC-130J Increment 0 aircraft up to the baseline Increment 2 configuration which were completed in May 2018. Increment 2 also included adding LAIRCM Group A provisions, crashworthy loadmaster seats, and increased electrical power. These modifications ensure total fleet commonality and avoids many DMS issues. It also provides for the installation of specific special operation modifications to HC-130J aircraft. This HC-130J mod is related to the MC-130J Increment 2 Mod (Mod #8632) which includes 10 MC-130Js from the Increment 1 to the Increment 2 configuration and 57 MC-130J CIP upgrades and Option X modifications.

Installations in FY22 and FY23 are HC CIP and Option X installations due to COVID-19 pandemic delays.

Milestone/Development Status

Complete

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	0.574	0.001	-	0.001
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	<b>0.000</b>	<b>0.574</b>	<b>0.001</b>	<b>0.000</b>	<b>0.001</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8634 / HC-130J Common Configuration	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Inc 0-2 Common Configuration						
A Kits						
Recurring						
Inc 0-2 Common Configuration:INSTALL KITS Group A (Active)	34 / 10.173	- / -	5 / 0.270	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 10.173	- / -	- / 0.270	- / -	- / -	- / -
<i>Subtotal: Inc 0-2 Common Configuration</i>	- / 10.173	- / -	- / 0.270	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 10.173	- / -	- / 0.270	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 9.687	- / -	- / -	- / -	- / -	- / -
SIM/TRAINER	5 / 6.953	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 1.513	- / -	- / -	- / -	- / -	- / -
OTHER GOVT	- / 12.738	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	5 / 20.891	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Inc 0-2 Common Configuration	22 / 13.745	10 / 0.000	2 / 0.304	5 / 0.001	- / -	5 / 0.001
<i>Subtotal: Installation</i>	22 / 13.745	10 / -	2 / 0.304	5 / 0.001	- / -	5 / 0.001
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>44.809</b>	<b>0.000</b>	<b>0.574</b>	<b>0.001</b>	<b>0.000</b>	<b>0.001</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8634 / HC-130J Common Configuration
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Inc 0-2 Common Configuration

**Manufacturer Information**

Manufacturer Name: Lockheed Martin Aero	Manufacturer Location: Marietta Ga		
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12		
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	
Delivery Dates		Mar 2022	

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	22 / 13.745	10 / 0.000	2 / 0.100	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 0.204	5 / 0.001	- / -	5 / 0.001
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	22 / 13.745	10 / 0.000	2 / 0.304	5 / 0.001	- / -	5 / 0.001

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	22		5	1	2	2	2	-	-	-	2	2	1	-
	18		5	5	1	2	2	1	-	-	1	2	2	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8635 / HC-130J Personnel Locator System

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	17.468	0.000	2.021	0.003	0.000	0.003
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	17.468	0.000	2.021	0.003	0.000	0.003
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>17.468</b>	<b>0.000</b>	<b>2.021</b>	<b>0.003</b>	<b>0.000</b>	<b>0.003</b>

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

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

**Description:**

This is an update to the personnel recovery communication systems to include, but not limited to, the lightweight airborne recovery system (LARS). This update was driven by the limited ability of the previous systems to connect to the emergency beacon frequency of 406 MHz or to connect with existing and future military survival radios such as the Combat Survivor Evader Locator (CSEL)(AN/PRQ-7) or the AN/PRC-112). It is a secure system that uses two-way encrypted over-the-horizon data communications. The system has gone through developmental test (DT) and operational test (OT) and has been approved for fielding. This effort includes but is not limited to kits, training, tech data, Readiness Spares Package (RSP), Operation Flight Program (OFP) builds, and other government costs.

This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

The LARS program will equip all 39 HC-130J aircraft that will be in the fleet. 30 kits and installs are completed. 3 additional kits will be installed in FY21 which have been purchased, along with the remaining 3 kits scheduled for installation in FY22, thus completing all initial installations.

Kits and installation costs in FY22 and FY23 may be required to field any software and hardware changes that may require installation to keep LARS operational.

Milestone/Development Status

N/A

<b>Secondary Distribution</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF					
Quantity	-	-	-	-	-
Total Obligation Authority	0.000	2.021	0.003	-	0.003
<b>Total:</b>					
<b>Secondary Distribution</b>					
Quantity	-	-	-	-	-
Total Obligation Authority	<b>0.000</b>	<b>2.021</b>	<b>0.003</b>	<b>0.000</b>	<b>0.003</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8635 / HC-130J Personnel Locator System	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HC-130J			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207224F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<b>Modification Item 1 of 1: Personnel Locator System</b>							
A Kits							
Recurring							
Personnel Locator System:INSTALL KITS Group A (Active)	39 / 1.383	- / -	- / -	- / 0.001	- / -	- / 0.001	
<b>Subtotal: Recurring</b>	<b>- / 1.383</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.001</b>	<b>- / -</b>	<b>- / 0.001</b>	
B Kits							
Recurring							
Personnel Locator System:EQUIPMENT Group B (Active)	39 / 10.426	- / -	- / 1.832	- / 0.001	- / -	- / 0.001	
<b>Subtotal: Recurring</b>	<b>- / 10.426</b>	<b>- / -</b>	<b>- / 1.832</b>	<b>- / 0.001</b>	<b>- / -</b>	<b>- / 0.001</b>	
<b>Subtotal: Personnel Locator System</b>	<b>- / 11.809</b>	<b>- / -</b>	<b>- / 1.832</b>	<b>- / 0.002</b>	<b>- / -</b>	<b>- / 0.002</b>	
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 11.809</b>	<b>- / -</b>	<b>- / 1.832</b>	<b>- / 0.002</b>	<b>- / -</b>	<b>- / 0.002</b>	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 0.491	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 0.227	- / -	- / -	- / -	- / -	- / -	
Data	- / 0.233	- / -	- / -	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 0.679	- / -	- / -	- / -	- / -	- / -	
PMA - Contractor Services	- / 0.481	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Support</b>	<b>- / 2.111</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Installation</b>							
<b>Modification Item 1 of 1: Personnel Locator System</b>	<b>27 / 3.548</b>	<b>6 / 0.000</b>	<b>3 / 0.189</b>	<b>3 / 0.001</b>	<b>- / -</b>	<b>3 / 0.001</b>	
<b>Subtotal: Installation</b>	<b>27 / 3.548</b>	<b>6 / -</b>	<b>3 / 0.189</b>	<b>3 / 0.001</b>	<b>- / -</b>	<b>3 / 0.001</b>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>17.468</b>	<b>0.000</b>	<b>2.021</b>	<b>0.003</b>	<b>0.000</b>	<b>0.003</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8635 / HC-130J Personnel Locator System

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Personnel Locator System

**Manufacturer Information**

Manufacturer Name: Cubic, Inc.	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 4

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	27 / 3.548	6 / 0.000	3 / 0.189	3 / 0.001	- / -	3 / 0.001
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	27 / 3.548	6 / 0.000	3 / 0.189	3 / 0.001	- / -	3 / 0.001

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	27	3	-	3	-	-	-	-	3	1	-	-	2
Out	27	3	-	3	-	-	-	-	3	1	-	-	2



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8636 / HC-130J Situational Awareness		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		66.966	15.349	22.521	2.837	0.000	2.837
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		66.966	15.349	22.521	2.837	0.000	2.837
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>66.966</b>	<b>15.349</b>	<b>22.521</b>	<b>2.837</b>	<b>0.000</b>	<b>2.837</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

Equips HC-130J Personnel Recovery fleet with situational awareness capabilities to increase, maintain, and sustain the personnel recovery task force's ability to rapidly exchange secure information between disparate tactical network systems and enable onboard, real time situational awareness. The Situational Awareness Capabilities Upgrade (SACU) Program is implemented in phases.

SACU Phase 1A equips the HC-130J fleet with 5 situational awareness capabilities (Situational Awareness Data Link (SADL), Blue Force Tracking (BFT), PRC-117 High Performance Waveform (HPW), Air Force Tactical Receiver System-Ruggedized (AFTRS-R) and Joint Precision Aerial Delivery system (JPADS)) which were inherent in legacy aircraft. SACU Phase 1B equips the HC-130J fleet with Video Data Link and Special Communications Radios. SACU Phase 2 equips the HC-130J with Blue Force Tracking 2 (BFT-2), replaces Combat System Officer (CSO) laptops with solid state server and Video Display Terminal (VDT), Video Encoder, additional Ethernet connections in cargo area, and replaces the federated situational awareness software suite to include the Joint Mission Planning System (JMPS) interface. SACU Phase 2 also procures installation kits and installs, includes upgrading the 7.0/8.1 Link 16 Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) capability. These capabilities were accelerated to meet operational needs.

This funding profile provides the support needed to procure and install for each of the 3 SACU phases on 39 HC-130J aircraft, as well as the field support required. Procurement will include Phase 1A (3 kits to cover congressional added aircraft), Phase 1B (39 kits & installs), Phase 2 (39 kits & installs). This funding request includes but is not limited to potential RSP support of: DMS and obsolescence solutions, to include (if optimal) life of type buys or bridge buys limited to the program of record quantity; Changes to existing SACU configurations and/or capabilities; Upgrades to simulators/training devices; Interim Contractor Support (ICS) requirements; and to address Field Support needs such as Training, Interim Supply Support, and Support equipment.

Phases 1A, 1B, 2 and Link-16 MIDS JTRS together make up the SACU requirement. SACU is required on 39 HC-130Js and each Phase has it's own retrofit schedule. Total installs in this P-3A include all phases for a total of 156 retrofits. The retrofits are being awarded on contract as grouped retrofits to gain synergy and minimize costs; therefore they are not reported separately in this P-3A. Also, costs per kit vary from year to year based upon the various kits for each phase being procured.

Per direction from SAF/AQ, HC/MC has been directed to follow the Re-engineered Supply Support Program (RSSP) policy direction dated 11 Feb 2000, to procure initial spares with program funding. The line in the funding table labeled "Mod of Spares" is the procurement of initial spares.

FY21 funding includes \$22.473M for Overseas Contingency Operations.

**Milestone/Development Status**

Phase 1A - MS C, 17 Dec 15 - Completed 36 of 39 installs  
Phase 1B - MS C, 31 May 16 - Completed 19 of 39 installs

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8636 / HC-130J Situational Awareness
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Phase 2A - MS C, 17 Jan 18 - Completed System Requirements Review, Preliminary Design Review, and Critical Design Review

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	15.349	22.521	2.837	-	2.837
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>15.349</b>	<b>22.521</b>	<b>2.837</b>	<b>0.000</b>	<b>2.837</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8636 / HC-130J Situational Awareness	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: Situational Awareness</i>						
A Kits						
Recurring						
Situational Awareness:INSTALL KITS Group A (Active)	52 / 7.478	6 / 1.126	8 / 5.899	2 / 0.170	- / -	2 / 0.170
<i>Subtotal: Recurring</i>	- / 7.478	- / 1.126	- / 5.899	- / 0.170	- / -	- / 0.170
B Kits						
Recurring						
Situational Awareness:EQUIPMENT Group B (Active)	52 / 14.639	6 / 4.444	8 / 11.442	2 / 0.406	- / -	2 / 0.406
<i>Subtotal: Recurring</i>	- / 14.639	- / 4.444	- / 11.442	- / 0.406	- / -	- / 0.406
<i>Subtotal: Situational Awareness</i>	- / 22.117	- / 5.570	- / 17.341	- / 0.576	- / -	- / 0.576
<i>Subtotal: Procurement, All Modification Items</i>	- / 22.117	- / 5.570	- / 17.341	- / 0.576	- / -	- / 0.576
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 10.516	- / 8.979	- / -	- / -	- / -	- / -
OTHER GOVT	- / 2.185	- / 0.100	- / 0.070	- / 0.001	- / -	- / 0.001
Mod of Spares	- / -	- / -	- / -	- / 0.010	- / -	- / 0.010
PMA - Contractor Services	- / 1.906	- / -	- / 0.200	- / 0.010	- / -	- / 0.010
ICS-Labor	- / 5.852	- / -	- / 0.030	- / 0.010	- / -	- / 0.010
SIM/TRAINER	1 / 8.659	- / -	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / 0.159	- / -	- / -	- / 0.030	- / -	- / 0.030
<i>Subtotal: Support</i>	1 / 29.277	- / 9.079	- / 0.300	- / 0.061	- / -	- / 0.061
<b>Installation</b>						
<i>Modification Item 1 of 1: Situational Awareness</i>						
<i>Subtotal: Installation</i>	36 / 15.572	16 / 0.700	6 / 4.880	8 / 2.200	- / -	8 / 2.200
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>66.966</b>	<b>15.349</b>	<b>22.521</b>	<b>2.837</b>	<b>0.000</b>	<b>2.837</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8636 / HC-130J Situational Awareness

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Situational Awareness

**Manufacturer Information**

Manufacturer Name: Lockheed Martin Missiles and Fire Control		Manufacturer Location: Lexington, KY	
Administrative Leadtime (in Months): 3		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Sep 2020	Jan 2021	Jan 2022
Delivery Dates	Sep 2021	Jan 2022	Jan 2023

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	36 / 15.572	16 / 0.000	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 0.700	6 / 0.000	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 4.880	8 / 0.000	- / -	8 / 0.000
FY 2022	- / -	- / -	- / -	0 / 2.200	- / -	0 / 2.200
<b>Total</b>	<b>36 / 15.572</b>	<b>16 / 0.700</b>	<b>6 / 4.880</b>	<b>8 / 2.200</b>	<b>- / -</b>	<b>8 / 2.200</b>

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	36	5	3	5	3	3	0	0	3	0	3	3	2
Out	36	5	3	5	3	3	0	0	3	0	3	3	2

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8639 / Wireless Intercom

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	11.759	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	11.759	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>11.759</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

No FY 2022 Funding Requested.

This is an update to inter-phone communication system (ICS) to include, but not limited to, the Integrated Secure Wireless Inter-phone Communication System (ISWICS). This update is an encrypted system that is compatible with approved headsets, helmets, and oxygen masks and allows the loadmaster and other crew to wirelessly communicate with crew members in normal, push-to-talk, and voice activated mode (VOX). In addition to added wireless capability to the current ICS this upgrade also allows maintenance and forward area refueling point (FARP) crew to utilize ICS rather than relying on hand signals. This effort includes but is not limited to kits, training, tech data, Readiness Spares Package (RSPs), Operational Flight Program (OFP) builds, and other government costs. This is a non-developmental, commercially off the shelf available system. Total requirement to be procured and installed is up to 64 MC-130J aircraft. This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

One unit was acquired in 2019 from SCI for demo purposes. The final report for this demonstration was received in Jan 2021 and HQ AFSOC deemed the ISWICS system not adequate.

The new strategy to satisfy the wireless ICS requirement is to leverage the ICS design work completed under the MC-130J Airborne Mission Networking (AbMN) program and task the AbMN vendor to integrate a wireless system with the remaining funds.

**Milestone/Development Status**

The estimated contract award date is August 2021.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8639 / Wireless Intercom	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207224F, 0207230F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Wireless Interphone Communication System						
B Kits						
Recurring						
Wireless Interphone Communication System:EQUIPMENT Group B (Active)	57 / 11.259	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 11.259	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Wireless Interphone Communication System</i>	- / 11.259	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.259	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
PMA - Other Gov't Costs	0 / 0.500	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	0 / 0.500	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>11.759</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> Wireless Interphone Communication System			
<b>Manufacturer Information</b>			
Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 8	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 57	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8642 / (AbMN) Airborne Mission Networking

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	25.576	26.471	16.771	45.195	0.000	45.195
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	25.576	26.471	16.771	45.195	0.000	45.195
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>25.576</b>	<b>26.471</b>	<b>16.771</b>	<b>45.195</b>	<b>0.000</b>	<b>45.195</b>

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

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

**Description:**

AbMN is AFSOC's key enabler for Joint All-Domain Command and Control in modern conflict environments; it is a net-centric capability to improve tactical decision making by creating a correlated, common operating picture and provides for enhanced, digital collaboration with Combat Air Forces and Coalition partners. This modification equips the MC-130J with the service common hardware to satisfy the USAF Airborne Networking mandate as well as AFSOC's communication tactical datalink capability requirements as stated in the USSOCOM Airborne Mission Networking Capabilities Development Document, dated 6 January 2016. The service common hardware will be permanently integrated in the MC-130J aircraft as part of USSOCOMs AbMN modification and provides capabilities that include Beyond Line of Site, Line of Site, and Full Motion Video datalink. This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. This program includes, but is not limited to, kits, training, simulators, tech data, spares, deployment packages, and other government costs.

Per direction from SAF/AQ, HC/MC has been directed to follow the Re-engineered Supply Support Program (RSSP) policy direction dated 11 Feb 2000, to procure initial spares with program funding. The line in the funding table labeled "Mod of Spares" is the procurement of initial spares.

Requirement is 57 MC-130J aircrafts.

This program provides the AF service common hardware for USSOCOM PE (1160403BB). USSOCOM funds the integration and installation of the AF service common hardware as part of its AbMN program.

Milestone/Development Status

Milestone Development Status:

MS-B; LRIP start 3QFY20, MS-C 3QFY22

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	26.471	16.771	45.195	-	45.195
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	26.471	16.771	45.195	0.000	45.195



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8642 / (AbMN) Airborne Mission Networking	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: AbMNGroup B</i>						
B Kits						
Recurring						
AbMNGroup B:EQUIPMENT Group B (Active)	4 / 24.449	4 / 21.366	1 / 8.310	4 / 19.280	- / -	4 / 19.280
<i>Subtotal: Recurring</i>	- / 24.449	- / 21.366	- / 8.310	- / 19.280	- / -	- / 19.280
<i>Subtotal: AbMNGroup B</i>	- / 24.449	- / 21.366	- / 8.310	- / 19.280	- / -	- / 19.280
<i>Subtotal: Procurement, All Modification Items</i>	- / 24.449	- / 21.366	- / 8.310	- / 19.280	- / -	- / 19.280
<b>Support (All Modification Items)</b>						
SIM/TRAINER	- / -	- / 0.462	- / 8.183	- / 14.212	- / -	- / 14.212
ICS-Material	- / -	- / -	- / -	- / 0.001	- / -	- / 0.001
Mod of Spares	- / 1.127	- / 4.052	- / 0.027	- / 4.689	- / -	- / 4.689
OTHER GOVT	- / -	- / 0.591	- / 0.251	- / 7.013	- / -	- / 7.013
<i>Subtotal: Support</i>	- / 1.127	- / 5.105	- / 8.461	- / 25.915	- / -	- / 25.915
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>25.576</b>	<b>26.471</b>	<b>16.771</b>	<b>45.195</b>	<b>0.000</b>	<b>45.195</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> AbMNGroup B			
<b>Manufacturer Information</b>			
Manufacturer Name: Sierra Nevada Corporation		Manufacturer Location: Centennial, CO	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019	Dec 2020	Dec 2021
Delivery Dates	Dec 2020	Dec 2021	Dec 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8648 / ADS-B out Acceleration

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2.175	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2.175	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>2.175</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

This funding is used to improve compliance with USG and international mandates that allow HC/MC-130Js to utilize US and international airspace. This includes, but is not limited to, the Automatic Dependent Surveillance-Broadcast (ADS-B) Out program. HC/MC-130J is a part of the C-130J ADS-B Acceleration program which separated the ADS-B Out program from the 7.0/8.1 Program. The C-130J ADS-B Out program addresses the Federal Aviation Administration/International Civil Aviation Organization (FAA/ICAO) Communications/Navigation/Surveillance and Air Traffic Management (CNS/ATM) mandate. Aircraft not installed with ADS-B Out during production will be modified immediately after production delivery, prior to delivery to units.

**Milestone/Development Status**

Retrofits completed on 31 March 2020.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	-	-	-	-
<b>Total:</b> <b>Secondary Distribution</b>	Quantity	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8648 / ADS-B out Acceleration	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b>		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Group A						
A Kits						
Recurring						
Group A:INSTALL KITS Group A (Active)	0 / 1.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 1.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Group A</i>	<i>- / 1.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 1.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Support (All Modification Items)</b>						
PMA - Contractor Services	- / 0.695	- / -	- / -	- / -	- / -	- / -
OTHER GOVT	- / 0.480	- / 0.000	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	<i>- / 1.175</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>2.175</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> Group A			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin		Manufacturer Location: Marietta, GA	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 5	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8652 / (RFCM) Radio Frequency Countermeasures

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	62.529	0.000	28.900	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	62.529	0.000	28.900	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>62.529</b>	<b>0.000</b>	<b>28.900</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

The HC-130J Radio Frequency Countermeasures (RFCM) program procures and installs the Defensive System Suite (DSS) which includes the ALQ-253 (Countermeasures Signal Processor), Advanced Threat Display (ATD) and Countermeasures Dispensing System (CMDS) two-position yoke switch kits to allow the HC-130J to operate in contested environments. DSS will also include the CSO 2.5 Block 6.5 redesign. This was previously included in Phase 2 of the Situational Awareness Communication Upgrade (SACU) program, however it is also required for the DSS modification which will be put on the aircraft before SACU. The DSS program includes but it is not limited to equipment, associated support requirements, OFP builds, training, spares, Diminishing Manufacturing Source (DMS) and Interim Contractor Support.

Per direction from SAF/AQ, HC/MC has been directed to follow the Re-engineered Supply Support Program (RSSP) policy direction dated 11 Feb 2000, to procure initial spares with program funding. The line in the funding table labeled "Mod of Spares" is the procurement of initial spares.

Group A and B kit costs in FY19 and FY21 also include the costs for the CSO 2.5 delta kits that have been added to RFCM; therefore, the per unit kit cost is more.

The requirement is for 39 HC-130Js. Current funding includes the 39 HC-130J aircraft.

FY21 funds include \$28.900M for Overseas Contingency Operations.

**Milestone/Development Status**

The program has entered Milestone C and has awarded a contract for Non-Recurring Engineering (NRE)/Trial Kit Installation (TKI), purchase of Group B items and installation on the HC-130J fleet. An Un-definitized Contracting Action (UCA) was awarded in September 2020 to include procurement and installation of the CSO 2.5 kits. Definitization is on schedule to award the end of May 2021.

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	28.900	-	-	-
<b>Total:</b> <b>Secondary Distribution</b>	Quantity	-	-	-	-	-
	Total Obligation Authority	<b>0.000</b>	<b>28.900</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8652 / (RFCM) Radio Frequency Countermeasures	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> HC-130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1: RFCM</i>							
A Kits							
Recurring							
RFCM:INSTALL KITS Group A (Active)	35 / 5.317	- / -	4 / 4.841	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 5.317	- / -	- / 4.841	- / -	- / -	- / -	
B Kits							
Recurring							
RFCM:EQUIPMENT Group B (Active)	35 / 21.265	- / -	4 / 19.365	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 21.265	- / -	- / 19.365	- / -	- / -	- / -	
<i>Subtotal: RFCM</i>	- / 26.582	- / -	- / 24.206	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	- / 26.582	- / -	- / 24.206	- / -	- / -	- / -	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 22.430	- / -	- / -	- / -	- / -	- / -	
Change Orders	- / 1.104	- / -	- / 1.065	- / -	- / -	- / -	
SIM/TRAINER	- / 5.961	- / -	- / 3.628	- / -	- / -	- / -	
ICS-Material	- / 0.022	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 0.069	- / -	- / -	- / -	- / -	- / -	
Mod of Spares	- / 5.378	- / -	- / -	- / -	- / -	- / -	
Type 1 Training	- / 0.724	- / -	- / -	- / -	- / -	- / -	
PMA - Other Gov't Costs	- / -	- / -	- / 0.001	- / -	- / -	- / -	
SUPPORT-EQUIP	- / 0.259	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / 35.947	- / -	- / 4.694	- / -	- / -	- / -	
<b>Installation</b>							
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>62.529</b>	<b>0.000</b>	<b>28.900</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
		<b>Modification Number / Title:</b> 8652 / (RFCM) Radio Frequency Countermeasures	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> RFCM			
<b>Manufacturer Information</b>			
Manufacturer Name: Lockheed Martin Aero		Manufacturer Location: Marietta, GA	
Administrative Leadtime ( <i>in Months</i> ): 8		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Jun 2021	
Delivery Dates		Jun 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 44	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8658 / Paratroop Door

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	24.500	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	24.500	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>24.500</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

HC-130J Upgraded Paratroop Door System will upgrade the paratroop door system that combines improved visual scanning, armor, and a spring-loaded counter balance system that alleviates damage to paratroop doors, facilitates operation, and egress with armor installed.

This requirement is documented on AF Form 1067, #17-309.

This funding includes but is not limited to purchasing kits associated training, support requirements, tech data, spares, deployment packages, Diminishing Manufacturing Source (DMS), and other government costs.

This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

Requirement is for 39 HC-130J aircrafts.

Milestone/Development Status

Development Complete.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8658 / Paratroop Door	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> HC-130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Paratroop Kits							
B Kits							
Recurring							
Paratroop Kits:EQUIPMENT Group B (Active)	18 / 24.500	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	<i>- / 24.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<i>Subtotal: Paratroop Kits</i>	<i>- / 24.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 24.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Installation</b>							
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>24.500</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> Paratroop Kits			
<b>Manufacturer Information</b>			
Manufacturer Name: Airdyne Aerospace		Manufacturer Location: Brooksville, FL	
Administrative Leadtime (in Months): 9		Production Leadtime (in Months): 4	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 18	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8659 / Broadband Antenna
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	9.400	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	9.400	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>9.400</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

Equips the MC-130J with an airborne satellite terminal that delivers over the horizon high-speed IP communications (Full motion video link).

Current funding includes but is not limited to aircraft kits, OFP (Operational Flight Program) builds, associated training, tech data, RSPs, aircraft verification/qualification, and other government costs required for installation on up to 6 aircraft.

The remaining fleet will be outfitted under the Air-borne Mission Networking (AbMN) program.

Milestone/Development Status

Milestone: N/A

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8659 / Broadband Antenna	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0207230F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Group A Kits						
A Kits						
Recurring						
Group A Kits:INSTALL KITS Group A (Active)	4 / 9.400	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 9.400</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Group A Kits</i>	<i>- / 9.400</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 9.400</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>9.400</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> Group A Kits			
<b>Manufacturer Information</b>			
Manufacturer Name: Sierra Nevada Corporation		Manufacturer Location: Sparks,NV	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 15	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 4	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8762 / MC-130J Link 16

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	4.420	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	4.420	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>4.420</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Link 16 is a critical part of the Air Force Special Operations Command Airborne Mission Networking (AbMN) Concept of Operations. It provides critical situational awareness to MC-130J aircrews operating in contested airspace while providing aircraft position information to friendly aircraft, including Combat Air Forces and Suppression of Enemy Air Defense support aircraft. This modification equips the MC-130J with the hardware necessary to satisfy the Link-16 portion of the USAF Airborne Networking mandate as well as AFSOC's communication tactical datalink capability requirements as stated in the USSOCOM AbMN Capabilities Development Document, dated 6 January 2016. The hardware will be temporarily integrated in the MC-130J aircraft to provide a Line of Site datalink until USSOCOM's permanent AbMN modification is completed.

This funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

This program includes, but is not limited to, kits, training, spares, support equipment, deployment packages and other government costs.

Per direction from SAF/AQ, HC/MC has been directed to follow the Re-engineered Supply Support Program (RSSP) policy direction dated 11 Feb 2000, to procure initial spares with program funding. The line in the funding table labeled "Mod of Spares" is the procurement of initial spares.

Requirement is 13 MC-130J aircraft.

Milestone/Development Status

Milestone Development Status: N/A

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	4.420	0.000	-	0.000
<b>Total:</b>	Quantity	-	-	-	-	-
<b>Secondary Distribution</b>	Total Obligation Authority	<b>0.000</b>	<b>4.420</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications			<b>Modification Number / Title:</b> 8762 / MC-130J Link 16	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J			<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> MC Link 16 B Kit							
B Kits							
Recurring							
MC Link 16 B Kit:EQUIPMENT Group B (Active)	- / -	- / -	13 / 2.002	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / -	- / -	- / 2.002	- / -	- / -	- / -	- / -
<i>Subtotal: MC Link 16 B Kit</i>	- / -	- / -	- / 2.002	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 2.002	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>							
OTHER GOVT	- / -	- / -	- / 0.025	- / -	- / -	- / -	- / -
MOD OF SPARES	- / -	- / -	- / 0.423	- / -	- / -	- / -	- / -
SUPPORT-EQUIP	- / -	- / -	- / 0.150	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / -	- / -	- / 0.598	- / -	- / -	- / -	- / -
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> MC Link 16 B Kit	- / -	- / -	0 / 1.820	8 / 0.000	- / -	- / -	8 / 0.000
<i>Subtotal: Installation</i>	- / -	- / -	- / 1.820	8 / 0.000	- / -	- / -	8 / 0.000
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>0.000</b>	<b>0.000</b>	<b>4.420</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8762 / MC-130J Link 16
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MC Link 16 B Kit

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 8

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2021	
Delivery Dates		Feb 2022	

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 1.820	8 / 0.000	- / -	8 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	0 / 1.820	8 / 0.000	- / -	8 / 0.000

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8764 / Trainer Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	0.000	83.617	0.000	83.617
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	0.000	83.617	0.000	83.617
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	-	<b>0.000</b>	<b>0.000</b>	<b>83.617</b>	<b>0.000</b>	<b>83.617</b>

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

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

**Description:**

This program, P-3A Mod 8764, Trainer Modifications, is a new start.

This effort updates the existing AC/MC-130J training/simulation systems to include modifications made to the aircraft to keep the trainer configuration in sync with the aircraft. This allows comprehensive training for aircrews and maintenance crews.

This includes, but is not limited to, Live Virtual Construct (LVC) and MC Concurrency Modifications. LVC allows trainers to interact not only with other trainers but with real aircraft performing missions. MC Concurrency Modification will update MC training/simulation systems, include but are not limited to, Continuous Improvement Program (CIP)/Option X, Automatic Dependent Surveillance-Broadcast Out (ADS-B out), and Large Aircraft Infra-Red Countermeasures (LAIRCM) capabilities.

This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.

This Modification also includes the upgrade of the AC Weapons Systems Trainer (WST) to an AC-130J configuration.

Milestone/Development Status

Complete

Secondary Distribution	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
AF	Quantity	-	-	-	-
	Total Obligation Authority	-	-	83.617	-
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-
	Total Obligation Authority	<b>0.000</b>	<b>0.000</b>	<b>83.617</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 8764 / Trainer Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MC-130J		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b>	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 2: LVC</b>						
B Kits						
Recurring						
LVC:EQUIPMENT Group B (Active)	- / -	- / -	- / -	1 / 35.917	- / -	1 / 35.917
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 35.917</b>	<b>- / -</b>	<b>- / 35.917</b>
<b>Subtotal: LVC</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 35.917</b>	<b>- / -</b>	<b>- / 35.917</b>
<b>Modification Item 2 of 2: Trainer (2)</b>						
B Kits						
Recurring						
Trainer:EQUIPMENT Group B (Active)	- / -	- / -	- / -	12 / 47.700	- / -	12 / 47.700
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 47.700</b>	<b>- / -</b>	<b>- / 47.700</b>
<b>Subtotal: Trainer (2)</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 47.700</b>	<b>- / -</b>	<b>- / 47.700</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 83.617</b>	<b>- / -</b>	<b>- / 83.617</b>
<b>Installation</b>						
<b>Modification Item 1 of 2: LVC</b>						
	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000
<b>Subtotal: Installation</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>1 / 0.000</b>	<b>- / -</b>	<b>1 / 0.000</b>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>0.000</b>	<b>0.000</b>	<b>83.617</b>	<b>0.000</b>	<b>83.617</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 8764 / Trainer Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 2:** LVC

**Manufacturer Information**

Manufacturer Name: Lockheed Martin RMS	Manufacturer Location: Orlando, FL
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 3

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2021
Delivery Dates			Mar 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000
<b>Total</b>	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5				<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications				<b>Modification Number / Title:</b> 8764 / Trainer Modifications					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 2 of 2:</b> Trainer (2)													
<b>Manufacturer Information</b>													
Manufacturer Name: Lockheed Martin RMS							Manufacturer Location: Orlando, FL						
Administrative Leadtime (in Months): 2							Production Leadtime (in Months): 4						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates										Dec 2021			
Delivery Dates										Apr 2022			
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contractor Facility													
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	-	-	-	-	-	-
Out	0	-	-	-	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	<b>Modification Number / Title:</b> 1 / HC- Low Cost Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	8.503	0.000	1.366	0.018	0.000	0.018
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	8.503	0.000	1.366	0.018	0.000	0.018
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>8.503</b>	<b>0.000</b>	<b>1.366</b>	<b>0.018</b>	<b>0.000</b>	<b>0.018</b>

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

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

**Description:**

HC Low Cost Modifications encompass, but are not limited to, efforts necessary to improve reliability, maintainability, safety, and mission performance, to reduce logistics costs, and to implement fleet upgrades and enhancements to meet emerging requirements for the HC-130J aircraft and associated training systems. This funding will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. HC Low Cost Modifications may include installation costs depending upon the modification.

Milestone/Development Status

NA

<b>Secondary Distribution</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	1.366	0.018	-	0.018
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.000</b>	<b>1.366</b>	<b>0.018</b>	<b>0.000</b>	<b>0.018</b>

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications		<b>Modification Number / Title:</b> 1 / HC- Low Cost Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> HC-130J, MC-130J		<b>Modification Type:</b> Safety		<b>Related RDT&amp;E PEs:</b> 0207224F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<b>Modification Item 1 of 2: COMMON: Low Cost Mod Kit</b>						
B Kits						
Recurring						
COMMON: Low Cost Mod Kit:EQUIPMENT Group B (Active)	- / 0.205	- / -	- / 0.689	- / 0.004	- / -	- / 0.004
<i>Subtotal: Recurring</i>	- / 0.205	- / -	- / 0.689	- / 0.004	- / -	- / 0.004
<i>Subtotal: COMMON: Low Cost Mod Kit</i>	- / 0.205	- / -	- / 0.689	- / 0.004	- / -	- / 0.004
<b>Modification Item 2 of 2: HC Low Cost Mod Kits</b>						
A Kits						
Recurring						
HC Low Cost Mod Kits:INSTALL KITS Group A (Active)	- / 0.100	- / -	- / 0.627	- / 0.002	- / -	- / 0.002
<i>Subtotal: Recurring</i>	- / 0.100	- / -	- / 0.627	- / 0.002	- / -	- / 0.002
<i>Subtotal: HC Low Cost Mod Kits</i>	- / 0.100	- / -	- / 0.627	- / 0.002	- / -	- / 0.002
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.305	- / -	- / 1.316	- / 0.006	- / -	- / 0.006
<b>Support (All Modification Items)</b>						
Data	- / -	- / -	- / 0.010	- / -	- / -	- / -
SIM/TRAINER	- / 0.010	- / -	- / 0.010	- / 0.004	- / -	- / 0.004
SUPPORT-EQUIP	- / 0.025	- / -	- / 0.015	- / 0.004	- / -	- / 0.004
OTHER GOVT	- / 8.163	- / -	- / 0.015	- / 0.004	- / -	- / 0.004
<i>Subtotal: Support</i>	- / 8.198	- / -	- / 0.050	- / 0.012	- / -	- / 0.012
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>8.503</b>	<b>0.000</b>	<b>1.366</b>	<b>0.018</b>	<b>0.000</b>	<b>0.018</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 2:</b> COMMON: Low Cost Mod Kit			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> HCMC00 / HC/MC-130 Modifications	
		<b>Modification Number / Title:</b> 1 / HC- Low Cost Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 2 of 2:</b> HC Low Cost Mod Kits			
<b>Manufacturer Information</b>			
Manufacturer Name: N/A		Manufacturer Location: N/A	
Administrative Leadtime (in Months):		Production Leadtime (in Months):	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0207224F, 0207701F, 0401897F	<b>Other Related Program Elements:</b> 0207224F, 0207249F, 0207701F, 0401897F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	476.941	50.098	100.774	54.828	-	54.828	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	476.941	50.098	100.774	54.828	-	54.828	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>476.941</b>	<b>50.098</b>	<b>100.774</b>	<b>54.828</b>	-	<b>54.828</b>	-	-	-	-	-	-

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

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

**Description:**

This line item funds multiple modifications that apply to weapon systems funded at less than 2 million per year as well as weapon systems with much greater budgets. The overall goal of the modifications budgeted is to enhance capability and improve reliability and maintainability.

Funding contained in this platform's documentation directly aids simulator aircraft training systems training enterprise to continue its overall FYDP pilot production increase, thus reducing the USAF pilot shortage.

Battlefield Airborne Communications Node (BACN) provides a Combatant Commander (CCDR) flexible, long-endurance, responsive airborne communications capability. BACN provides a dedicated airborne capability to conduct voice bridging/translation, Tactical Data Link (TDL) gateway, and TDL relay functions for beyond-line-of-sight (BLOS) data communications for the war fighter. Funding for this exhibit contained in PE 0207610F.

Mobility Air Forces (MAF) Training supports the modification and enhancement of high fidelity MAF aircrew training and support systems to meet combat readiness needs, to include efforts to ensure full employment of Distributed Mission Operations (DMO) capabilities. FY21 funding establishes DMO capability of C-130J Maintenance and Aircrew Training Systems.

Advanced Targeting Pods (ATPs) provide long-range target acquisition and expanded weapon delivery envelopes for greater aircraft survivability. ATP capabilities, such as high resolution imagery, larger aperture, eye safe laser, high system reliability and smaller deployment footprint provide greater combat effectiveness across several mission areas.

Funding for this exhibit contained in PE 0207228F, 0207224F, 0207249F, 0303601F, 0401897F.

Beginning in FY21, to support the divestiture of the EQ-4B (a variant of the RQ-4 Block 20/30 aircraft) efforts will taper accordingly, to include BACN payload sustainment & other BACN specific efforts.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense mission, domestic emergency responses, and providing military support to civilian authorities.

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

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
OTHACF / Other Aircraft

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0207224F, 0207701F, 0401897F **Other Related Program Elements:** 0207224F, 0207249F, 0207701F, 0401897F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	8669 / Full Combat Mission Training (Capability Improvement)				- / 76.404	- / 0.000	- / 4.595	- / 0.000	- / -	- / 0.000
P-40a***	8670 / MAF Training (Capability Improvement)				- / 33.686	- / 0.100	- / 16.505	- / 0.097	- / -	- / 0.097
P-40a***	8674 / ATP upgrade Legacy to SE (Other)				- / 106.217	- / 29.861	- / 25.926	- / 0.227	- / -	- / 0.227
P-40a***	8735 / DAS000 (ROBE) (Capability Improvement)				- / 10.400	- / -	- / -	- / -	- / -	- / -
P-40a***	8736 / Counterdrug USSOUTHCOM Support (No text provided.)				- / 1.200	- / -	- / -	- / -	- / -	- / -
P-40a***	99999J / MISCELLANEOUS LOW COSTS MODS (Combat Developments) (Other)				- / 142.935	- / 4.616	- / 0.154	- / 0.157	- / -	- / 0.157
P-40a***	HH-60U / HH-60U (Capability Improvement)				- / 3.608	- / 1.900	- / 1.897	- / 1.861	- / -	- / 1.861
P-3a	8675 / ATP-SE Technology Insertion (Capability Improvement)			A	- / 87.376	- / 13.621	- / 13.846	- / 13.851	- / 0.000	- / 13.851
P-3a	8733 / Battlefield ABN Comm Node (BACN) (Other)			A	- / 15.115	- / 0.000	- / 37.851	- / 38.635	- / 0.000	- / 38.635
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 476.941</b>	<b>- / 50.098</b>	<b>- / 100.774</b>	<b>- / 54.828</b>	<b>- / -</b>	<b>- / 54.828</b>

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

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

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

**Justification:**  
FY22 funding will support procurement of new Payload capability & integration as well as purchases of other Mods to the existing fleet and related provisioning supplies. Additionally this funding procures ground systems, to include Interim Contract Support.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft	<b>Modification Number / Title:</b> 8675 / ATP-SE Technology Insertion
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	87.376	13.621	13.846	13.851	0.000	13.851
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	87.376	13.621	13.846	13.851	0.000	13.851
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>87.376</b>	<b>13.621</b>	<b>13.846</b>	<b>13.851</b>	<b>0.000</b>	<b>13.851</b>

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

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

**Description:**

This effort improves the critical capability of Combat Identification (CID). The LITENING and Sniper ATP contracts will address requirements centered on hardware and software upgrades and associated host platform integration (to include necessary test), modification of spares, correction of service life deficiencies, technical orders, repair data, studies and support of organic depot repair requirements. Modification of legacy pods to ATP-sensor enhancement (SE) standards may be necessary for modifications. In addition, this requirement provides for program management support (PMA). Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Quantities will vary based on funding, negotiated prices and COCOM requirements.

Milestone/Development Status

ATP reached Full Operational Capability (FOC) July 2017

Milestone/Development Status

Upgrades will incorporate capabilities developed by industry and through the SE contract.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft			<b>Modification Number / Title:</b> 8675 / ATP-SE Technology Insertion	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> A-10, F-15C, F-15E, F-16, B-1, B-52		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0207249F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> Upgrade Kit (2)							
A Kits							
Recurring							
Upgrade Kit:INSTALL KITS Group A (Active)	309 / 61.756	144 / 10.821	144 / 11.046	144 / 11.321	- / -	144 / 11.321	
<i>Subtotal: Recurring</i>	- / 61.756	- / 10.821	- / 11.046	- / 11.321	- / -	- / 11.321	
<i>Subtotal: Upgrade Kit (2)</i>	- / 61.756	- / 10.821	- / 11.046	- / 11.321	- / -	- / 11.321	
<i>Subtotal: Procurement, All Modification Items</i>	- / 61.756	- / 10.821	- / 11.046	- / 11.321	- / -	- / 11.321	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING	- / 22.000	- / -	- / -	- / -	- / -	- / -	
PMA - Contractor Services	- / 0.600	- / 0.600	- / 0.600	- / 0.400	- / -	- / 0.400	
PMA - Other Gov't Costs	- / 0.200	- / 0.200	- / 0.200	- / 0.130	- / -	- / 0.130	
<i>Subtotal: Support</i>	- / 22.800	- / 0.800	- / 0.800	- / 0.530	- / -	- / 0.530	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> Upgrade Kit (2)	89 / 2.820	148 / 2.000	144 / 2.000	144 / 2.000	- / -	144 / 2.000	
<i>Subtotal: Installation</i>	89 / 2.820	148 / 2.000	144 / 2.000	144 / 2.000	- / -	144 / 2.000	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>87.376</b>	<b>13.621</b>	<b>13.846</b>	<b>13.851</b>	<b>0.000</b>	<b>13.851</b>	

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>											<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5						<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft					<b>Modification Number / Title:</b> 8675 / ATP-SE Technology Insertion		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A								<b>MDAP/MAIS Code:</b>					
<b>Modification Item 1 of 1: Upgrade Kit (2)</b>													
<b>Manufacturer Information</b>													
Manufacturer Name: Lockheed Martin							Manufacturer Location: Orlando, FL						
Administrative Leadtime (in Months): 1							Production Leadtime (in Months): 12						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates		Jun 2020				Jun 2021				Jun 2022			
Delivery Dates		Jun 2021				Jun 2022				Jun 2023			
Manufacturer Name: Northrop Grumman							Manufacturer Location: Rolling Meadows, IL						
Administrative Leadtime (in Months): 1							Production Leadtime (in Months): 12						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates		Jun 2020				Jun 2021				Jun 2022			
Delivery Dates		Jun 2021				Jun 2022				Jun 2023			
<b>Installation Information</b>													
<b>Method of Implementation: Contractor Facility</b>													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		89 / 2.820		148 / 2.000		72 / 1.000		- / -		- / -		- / -	
FY 2020		- / -		- / -		72 / 1.000		72 / 1.000		- / -		72 / 1.000	
FY 2021		- / -		- / -		- / -		72 / 1.000		- / -		72 / 1.000	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		89 / 2.820		148 / 2.000		144 / 2.000		144 / 2.000		- / -		144 / 2.000	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	89	38	38	36	36	36	36	36	36	36	36	36	36
Out	13	-	38	38	38	38	36	36	36	36	36	36	36

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft	<b>Modification Number / Title:</b> 8733 / Battlefield ABN Comm Node (BACN)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	15.115	0.000	37.851	38.635	0.000	38.635
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	15.115	0.000	37.851	38.635	0.000	38.635
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>15.115</b>	<b>0.000</b>	<b>37.851</b>	<b>38.635</b>	<b>0.000</b>	<b>38.635</b>

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

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

**Description:**

This program, P-3A Mod 8733, Battlefield ABN Comm Node (BACN).

Battlefield Airborne Communication Node (BACN) provides a Combatant Commander (CCDR) flexible, long-endurance, responsive airborne communications capability. BACN provides a dedicated airborne capability to conduct voice bridging/translation, Tactical Data Link (TDL) gateway, and TDL relay functions for beyond-line-of-sight (BLOS) data communications. Includes integration of Survivability UON - Military GPS (MIL GPS), M Code Military GPS, Protected Tactical Waveform (PTW), High Capacity Backbone (HCB), Identify Friend or Foe (IFF), emerging capabilities, Supplemental Type Certs (STC), and Electronic Flight Bags (EFB).

Funding will support procurement of aircraft engines to increase current BACN fleet service life expectancy and availability.

Funding for this exhibit contained in PE 0207610F.

BACN green platform procurement and integration activities support out of P-1 Line Item #99 E011A0/ E-11A BACN in PE: 0207238F.

**Milestone/Development Status**

BACN includes the payload, its host platforms, and associated ground systems. The program is currently in the Operations and Support (O&S) Phase of the Life Cycle Management System. As requirements emerge for new hardware and software capabilities that improve system performance, external time references, interoperability and open mission system technologies, BACN will host the integration of these and future emerging technologies, such as High Capacity Backbone (HCB), and Protected Tactical Waveform (PTW).

Funding will be used to address Diminishing Manufacturing Sources (DMS) Issues. This may include modifications required for enhanced capability and improvements to system reliability and maintainability. Safety of flight considerations, including but not limited to, performance, aircraft structural integrity, availability, and continuity of service requirements for long range reference, local area reference, and landing/terminal reference.

This effort includes Military GPS, advanced navigation systems and any additional mandates levied on the BACN system and platforms. Funding will also be used for fulfillment of requirements in support of alteration, conversion, modernization, and transition to a normalized Program of Record.

Transition to BACN Program of Record requires additional BACN aircraft platforms to meet the service retained capability requirements of Combatant Commanders needs emerge in multiple AOR's. This will include, but not be limited to, standardization of avionics baseline and the production of all Supplemental Type Certificates of the most up to date configurations of the fleet.



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft		<b>Modification Number / Title:</b> 8733 / Battlefield ABN Comm Node (BACN)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MULTI		<b>Modification Type:</b> Other			<b>Related RDT&amp;E PEs:</b>	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1: BACN Aircraft</i>						
A Kits						
Recurring						
BACN Aircraft:INSTALL KITS Group A (Active)	1 / 7.000	- / -	1 / 18.945	1 / 19.328	- / -	1 / 19.328
<i>Subtotal: Recurring</i>	<i>- / 7.000</i>	<i>- / -</i>	<i>- / 18.945</i>	<i>- / 19.328</i>	<i>- / -</i>	<i>- / 19.328</i>
<i>Subtotal: BACN Aircraft</i>	<i>- / 7.000</i>	<i>- / -</i>	<i>- / 18.945</i>	<i>- / 19.328</i>	<i>- / -</i>	<i>- / 19.328</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 7.000</i>	<i>- / -</i>	<i>- / 18.945</i>	<i>- / 19.328</i>	<i>- / -</i>	<i>- / 19.328</i>
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / 1.461	- / 1.486	- / -	- / 1.486
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.461</i>	<i>- / 1.486</i>	<i>- / -</i>	<i>- / 1.486</i>
<b>Installation</b>						
<i>Modification Item 1 of 1: BACN Aircraft</i>						
<i>Subtotal: Installation</i>	<i>1 / 8.115</i>	<i>- / -</i>	<i>1 / 17.445</i>	<i>1 / 17.821</i>	<i>- / -</i>	<i>1 / 17.821</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>15.115</b>	<b>0.000</b>	<b>37.851</b>	<b>38.635</b>	<b>0.000</b>	<b>38.635</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> OTHACF / Other Aircraft	<b>Modification Number / Title:</b> 8733 / Battlefield ABN Comm Node (BACN)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** BACN Aircraft

**Manufacturer Information**

Manufacturer Name: Bombardier	Manufacturer Location: Bridgeport, WV
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 8

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Jan 2021	Jan 2022
Delivery Dates		Sep 2021	Sep 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 8.115	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	1 / 17.445	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	1 / 17.821	- / -	1 / 17.821
Total	1 / 8.115	- / -	1 / 17.445	1 / 17.821	- / -	1 / 17.821

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	-	-	-	-	-	1	-	-	-	1	-	-
Out	1	-	-	-	-	-	-	-	1	-	-	-	1

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
PRDTB2 / MQ-9 Mods

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0205219F **Other Related Program Elements:** 0205219F

**Line Item MDAP/MAIS Code:** 424

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,323.061	254.414	155.011	144.287	-	144.287	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,323.061	254.414	155.011	144.287	-	144.287	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,323.061</b>	<b>254.414</b>	<b>155.011</b>	<b>144.287</b>	-	<b>144.287</b>	-	-	-	-	-	-

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

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

**Description:**

MQ-9 Reaper procurement includes all components of the MQ-9 weapon system. The basic MQ-9 Reaper system consists of the aircraft, sensors, a Ground Control Station (GCS), communications equipment, weapon kits, support equipment, simulator and training devices, technical data/training, and personnel required to operate, maintain, and sustain the system. The system is designed to be modular and open-ended. Mission-specific equipment is employed in a plug-and-play mission kit concept allowing specific aircraft and Ground Control Station (GCS) configurations to be tailored to fit mission needs.

MQ-9 aircraft will continue to be modified to ensure aircraft are standardized with the latest configuration. Additionally, the MQ-9 system will continue to evolve and upgrade its capabilities to satisfy new requirements and to address Reliability and Maintainability (R&M) and safety issues as they arise. MQ-9 Mods also includes, but is not limited to, aircraft, sensors, ground control stations, and ground support system retrofit to baseline configurations.

The Air Force has established the MQ-9 Multi-Domain Operation (M2DO) aircraft configuration which consists of multiple projects intended to keep the platform viable in the wide-spectrum of armed conflict in the near term. These efforts include, but are not limited to, Anti-Jam Global Positioning System, Enhanced Power, Link 16, Open Mission System/Stellar Relay, Signal Excision, Digital Spread Spectrum Signal, Enhanced Line of Site, Enhanced Auto-Takeoff and Landing, Enhanced Autonomy (including Intelligence Electronic Units). The number of M2DO aircraft, and final capabilities within this configuration, are subject to change as requirements evolve.

There are currently 158 Block 1 and 159 Block 5 MQ-9 aircraft (as of March 2021) totaling 317 in the inventory. Not all 317 aircraft will receive every modification. Modification quantities will vary due to attrition, budget constraints, and aircraft being modified by other customers. For each P-3a the number of aircraft funded with baseline modification funding is identified.

Efforts in this summary and associated P-3A's have been broken out into several modifications: 9151, 9152, 9154, 9155, 9159, 9164, 9167, and low cost modifications.

This program will revise quantities based on updated user requirements, aircraft availability, and as funding permits. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues.

This program has associated Research, Development Test and Evaluation (RDT&E) AF funding in MQ-9 PE 0205219F.

Funding for this exhibit contained in PE 0205219F.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0205219F	<b>Other Related Program Elements:</b> 0205219F
<b>Line Item MDAP/MAIS Code:</b> 424		

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
PRDTB2 / MQ-9 Mods

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0205219F **Other Related Program Elements:** 0205219F

**Line Item MDAP/MAIS Code:** 424

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	9151 / Block 5 (Capability Improvement)		B		- / 74.752	- / 1.515	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	9152 / MQ-9 Field (Capability Improvement)		B		- / 299.052	- / 13.222	- / 26.244	- / 0.275	- / 0.000	- / 0.275
P-3a	9154 / Lynx SAR (Capability Improvement)		B		- / 96.137	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	9155 / GCS Blk 30 (Capability Improvement)		B		- / 184.815	- / 2.707	- / 17.648	- / 0.000	- / 0.000	- / 0.000
P-3a	9159 / R&M enhancements (Reliability & Maintainability)		B		- / 74.304	- / 9.114	- / 7.782	- / 4.690	- / 0.000	- / 4.690
P-3a	9164 / Extended Range MQ-9 (Capability Improvement)		B		- / 290.276	- / 51.362	- / 11.695	- / 6.350	- / 0.000	- / 6.350
P-3a	9167 / MQ-9 Upgrade (Capability Improvement)		B		- / 289.155	- / 176.494	- / 89.642	- / 130.972	- / 0.000	- / 130.972
P-3a	1 / MQ-9 Low Cost Mods (Reliability & Maintainability)		B		- / 14.570	- / 0.000	- / 2.000	- / 2.000	- / 0.000	- / 2.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 1,323.061</b>	<b>- / 254.414</b>	<b>- / 155.011</b>	<b>- / 144.287</b>	<b>- / -</b>	<b>- / 144.287</b>

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

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

**Justification:**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9151 / Block 5
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	74.752	1.515	0.000	0.000	0.000	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	74.752	1.515	0.000	0.000	0.000	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>74.752</b>	<b>1.515</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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

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

**Description:**

This modification program includes 2 overarching projects:

Project 1: Upgrades to all MQ-9 Block 1 aircraft. This includes, but is not limited to upgrading the secure communications for the aircraft.

Project 2: Adding new capability into the MQ-9 Block 5 configuration. Specifically, the first effort (Block 5 Modification Project 2) includes, but is not limited to: Vortex Block 5. Release 1 is covered under the Block 5 modification program.

Requirements for this modification are validated in the MQ-9 Capability Production Document dated 8 August 2006.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

Milestone/Development Status

MQ-9 Block 5 Critical Design Review (CDR) completed April 2011. Developmental Test was completed July 2015. FOT&E completed December 2016. Effort is complete.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9151 / Block 5	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0205219F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<i>Modification Item 1 of 1: Hybrid Release 1</i>						
A Kits						
Recurring						
Hybrid Release 1:INSTALL KITS Group A (Active)	110 / 2.483	- / 0.211	- / -	- / 0.000	- / -	- / 0.000
<i>Subtotal: Recurring</i>	<i>- / 2.483</i>	<i>- / 0.211</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>
B Kits						
Recurring						
Hybrid Release 1:EQUIPMENT Group B (Active)	110 / 11.284	- / 1.001	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 11.284</i>	<i>- / 1.001</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Hybrid Release 1</i>	<i>- / 13.767</i>	<i>- / 1.212</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 13.767</i>	<i>- / 1.212</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 59.705	- / 0.303	- / -	- / 0.000	- / -	- / 0.000
<i>Subtotal: Support</i>	<i>- / 59.705</i>	<i>- / 0.303</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>
<b>Installation</b>						
<i>Modification Item 1 of 1: Hybrid Release 1</i>						
	110 / 1.280	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>110 / 1.280</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>74.752</b>	<b>1.515</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9151 / Block 5
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Hybrid Release 1

**Manufacturer Information**

Manufacturer Name: General Atomics ASI	Manufacturer Location: Poway, CA
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 6

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	110 / 1.280	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	110 / 1.280	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	110	-	-	-	-	-	-	-	-	-	-	-	-
Out	110	-	-	-	-	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9152 / MQ-9 Field
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	299.052	13.222	26.244	0.275	0.000	0.275
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	299.052	13.222	26.244	0.275	0.000	0.275
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>299.052</b>	<b>13.222</b>	<b>26.244</b>	<b>0.275</b>	<b>0.000</b>	<b>0.275</b>

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

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

**Description:**

This modification is a portion of the field retrofit program that upgrades MQ-9 aircraft with enhanced capabilities and utilizes a field team to perform the modification. Upgrades that are part of this modification, include but are not limited to, High Definition (HD) aircraft upgrades, Bomb Release Units (BRU)-71 bomb racks, Heavyweight Main Landing Gear (HMLG), VORTEX encrypted Data Links, Bandwidth Efficient Common Data Link (BE-CDL), POAM Mandates, Stores Management System (SMS), Selective Availability Anti-Spoofing Module (SAASM), cast sump, fuel bladders, Radar Altimeters, Barrett Asymmetric Digital Data Link Computers (BADDC), Beyond Line of Site (BLOS), Global Positioning System (GPS) splitter, Block 5 Power, and Command and Control data-link resiliency, and use of Retrofit facility space. The associated costs reflect all costs associated with the multiple elements of the MQ-9 field retrofits.

The quantity of aircraft for each modification varies depending on when the capability was cut into production.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

**Milestone/Development Status**

Development is complete. FY21-22 funding primarily used to support VORTEX encrypted Data Links, Bandwidth Efficient-CDL (BE-CDL), POAM Mandates, SAASM, BADDC, BLOS, and DMS efforts.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9152 / MQ-9 Field	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0205219F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> MQ-9 Field Mods						
A Kits						
Recurring						
MQ-9 Field Mods:INSTALL KITS Group A (Active)	645 / 25.984	108 / 0.993	55 / 1.254	38 / 0.041	- / -	38 / 0.041
<i>Subtotal: Recurring</i>	- / 25.984	- / 0.993	- / 1.254	- / 0.041	- / -	- / 0.041
B Kits						
Recurring						
MQ-9 Field Mods:EQUIPMENT Group B (Active)	645 / 230.071	108 / 9.172	55 / 21.126	38 / 0.187	- / -	38 / 0.187
<i>Subtotal: Recurring</i>	- / 230.071	- / 9.172	- / 21.126	- / 0.187	- / -	- / 0.187
<i>Subtotal: MQ-9 Field Mods</i>	- / 256.055	- / 10.165	- / 22.380	- / 0.228	- / -	- / 0.228
<i>Subtotal: Procurement, All Modification Items</i>	- / 256.055	- / 10.165	- / 22.380	- / 0.228	- / -	- / 0.228
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 26.471	- / 2.078	- / 2.627	- / 0.026	- / -	- / 0.026
<i>Subtotal: Support</i>	- / 26.471	- / 2.078	- / 2.627	- / 0.026	- / -	- / 0.026
<b>Installation</b>						
<b>Modification Item 1 of 1:</b> MQ-9 Field Mods	544 / 16.526	74 / 0.979	120 / 1.237	55 / 0.021	- / -	55 / 0.021
<i>Subtotal: Installation</i>	544 / 16.526	74 / 0.979	120 / 1.237	55 / 0.021	- / -	55 / 0.021
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>299.052</b>	<b>13.222</b>	<b>26.244</b>	<b>0.275</b>	<b>0.000</b>	<b>0.275</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9152 / MQ-9 Field

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MQ-9 Field Mods

**Manufacturer Information**

Manufacturer Name: General Atomics-ASI		Manufacturer Location: Poway, CA	
Administrative Leadtime (in Months): 8		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2020	Jun 2021	Jun 2022
Delivery Dates	Jun 2021	Jun 2022	Jun 2023

**Installation Information**

**Method of Implementation:** Depot Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	544 / 16.526	74 / 0.979	27 / 0.000	- / -	- / -	- / -
FY 2020	- / -	- / -	93 / 1.237	15 / 0.000	- / -	15 / 0.000
FY 2021	- / -	- / -	- / -	40 / 0.021	- / -	40 / 0.021
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
Total	544 / 16.526	74 / 0.979	120 / 1.237	55 / 0.021	- / -	55 / 0.021

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	544	18	18	19	19	30	30	30	30	13	14	14	14
Out	544	18	18	19	19	30	30	30	30	13	14	14	14

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9154 / Lynx SAR

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	96.137	0.000	0.000	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	96.137	0.000	0.000	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>96.137</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Lynx Block 20A Synthetic Aperture Radar (SAR) began production in July 2012. This effort retrofits the 110 MQ-9 aircraft equipped with the older Lynx Block 20 SAR with the current production configuration (LNXD22000-003-000) of the Lynx Block 20A. This effort also retrofits/upgrades the Lynx Block 20A SAR produced in the earlier LNXD22000-001 and LNXD22000-002 configurations to the current production configuration. Retrofitting all Lynx radars to the current production configuration of the Lynx Block 20A SAR enhances fielded capability, significantly improves reliability and maintainability, provides the capability to locate and track dismounted targets, allows for the use of retrofit facility space, resolves Diminishing Manufacturing Sources (DMS) issues with the fielded radars, addresses security concerns, and facilitates future growth of capabilities.

The requirement for this modification is validated in the MQ-9 Capabilities Production Document dated 8 August 2006.

This program supports all efforts to field the Lynx Block 20A SAR capability.

This program will revise quantities based on updated user requirements and as funding permits. Funding may be used to address DMS and Non-Recurring Engineering (NRE) issues.

Replacement of the Lynx Block 20 SAR is the cost driver in this modification; hence, the 110 Lynx Block 20A SARs produced for that purpose are what is shown in the schedule section of the P-3A.

**Milestone/Development Status**

The Lynx Block 20A SAR completed initial development. It began production in July 2012 and was initially fielded on MQ-9 tail number AF4125 delivered 22 March 2013. Effort is complete. The FY22 Polar Filter Retrofit effort is to produce and deploy a polarization filter on the Lynx radar that supports Dismount Moving Target Indicator (DMTI) performance enhancement. General Atomics (GA) has performed initial development of the filter under a modernization contract and this effort is to procure, assemble, and deliver 263 Polar Filter Retrofit kits for O-level installation for the Block 5 MQ-9 aircraft.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9154 / Lynx SAR	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0205219F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<b>Modification Item 1 of 1: Lynx SAR</b>						
A Kits						
Recurring						
Lynx SAR:INSTALL KITS Group A (Active)	76 / 10.218	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 10.218	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
Lynx SAR:EQUIPMENT Group B (Active)	76 / 79.272	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 79.272	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Lynx SAR</i>	- / 89.490	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / 89.490	- / -	- / -	- / -	- / -	- / -
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 6.647	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 6.647	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>96.137</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> Lynx SAR			
<b>Manufacturer Information</b>			
Manufacturer Name: General Atomics-ASI		Manufacturer Location: Poway, CA	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 76	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9155 / GCS Blk 30

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	184.815	2.707	17.648	0.000	0.000	0.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	184.815	2.707	17.648	0.000	0.000	0.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>184.815</b>	<b>2.707</b>	<b>17.648</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Ground Control Station (GCS) modernization retrofit program upgrades the GCS, including, but not limited to Fixed and Mobile GCS with new Linux processors, high definition displays, ergonomic improvements, tech refreshes, communications improvements, cyber security improvements, Predator Primary Data Links (PPDLs), 2nd ARC-210 radio capabilities, emergency line of sight, open architecture and Barrett Asymmetric Digital Data Link Computers (BADDs). Through an incremental approach, GCS modernization retrofits the legacy system with user-prioritized capabilities to include significant Human-Machine Interface (HMI) improvements and reliability and maintenance enhancements. Unit costs vary due to the mix of fixed and mobile retrofits, which have varying costs.

Requirement for this modification is validated in the MQ-9 Capability Production Document dated 8 August 2006.

This modification supports all efforts required to field the GCS capability and will revise quantities based upon user requirements, GCS Availability, and available funding. Funding may be used to address Diminishing Manufacturing Sources (DMS) and Non-Recurring Engineering (NRE) issues. Funding may be used to update simulators to current configuration or to meet the needs of the user.

**Milestone/Development Status**

GCS Critical Design Review completed Apr 2011.

Test and evaluation was completed June 2013. Operation test was completed September 2016.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods			<b>Modification Number / Title:</b> 9155 / GCS Blk 30	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0205219F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>RDT&amp;E PE #</b>							
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372	
<b>Procurement</b>							
<b>Modification Item 1 of 1:</b> GCS Block 30							
A Kits							
Recurring							
GCS Block 30:INSTALL KITS Group A (Active)	76 / 13.089	- / 0.045	- / 0.346	0 / 0.000	- / -	0 / 0.000	
<i>Subtotal: Recurring</i>	- / 13.089	- / 0.045	- / 0.346	- / 0.000	- / -	- / 0.000	
B Kits							
Recurring							
GCS Block 30:EQUIPMENT Group B (Active)	76 / 95.284	- / 1.220	- / 6.098	0 / 0.000	- / -	0 / 0.000	
<i>Subtotal: Recurring</i>	- / 95.284	- / 1.220	- / 6.098	- / 0.000	- / -	- / 0.000	
<i>Subtotal: GCS Block 30</i>	- / 108.373	- / 1.265	- / 6.444	- / 0.000	- / -	- / 0.000	
<i>Subtotal: Procurement, All Modification Items</i>	- / 108.373	- / 1.265	- / 6.444	- / 0.000	- / -	- / 0.000	
<b>Support (All Modification Items)</b>							
Change Orders	- / 1.210	- / -	- / -	- / -	- / -	- / -	
OTHER GOVT	- / 14.729	- / 0.354	- / 12.752	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / 15.939	- / 0.354	- / 12.752	- / -	- / -	- / -	
<b>Installation</b>							
<b>Modification Item 1 of 1:</b> GCS Block 30							
<i>Subtotal: Installation</i>	58 / 60.503	12 / 1.088	6 / 8.452	0 / 0.000	- / -	0 / 0.000	
<i>Subtotal: Installation</i>	58 / 60.503	12 / 1.088	6 / 8.452	0 / -	- / -	0 / -	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>	<b>184.815</b>	<b>2.707</b>	<b>17.648</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9155 / GCS Blk 30
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** GCS Block 30

**Manufacturer Information**

Manufacturer Name: General Atomics-ASI	Manufacturer Location: Poway, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 3

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Depot Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	58 / 60.503	12 / 1.088	6 / 8.452	- / -	- / -	- / -
FY 2020	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>58 / 60.503</b>	<b>12 / 1.088</b>	<b>6 / 8.452</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>0 / 0.000</b>

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	58	3	3	3	3	2	2	2	-	-	-	-
Out	58	3	3	3	3	2	2	2	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9159 / R&M enhancements

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	74.304	9.114	7.782	4.690	0.000	4.690
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	74.304	9.114	7.782	4.690	0.000	4.690
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>74.304</b>	<b>9.114</b>	<b>7.782</b>	<b>4.690</b>	<b>0.000</b>	<b>4.690</b>

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

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

**Description:**

This effort enables Reliability and Maintainability (R&M) modifications to the MQ-9 aircraft, sensor payloads, Ground Control Stations (GCS), and simulators. R&M modifications improve component mean time between failure and maintenance action rate requirements, and drive down system sustainability costs. Examples include, but are not limited to improved oil system sampling, new battery junction boxes, angle of attack probes, Ruggedized Aircraft Maintenance Test System (RAMTS), use of retrofit facility space, and improved power inverters. This effort addresses R&M issues identified by the Joint Reliability and Maintainability Evaluation Team (JRMET) and CAT I deficiency reports.

The requirement for R&M Enhancements is validated in the MQ-9 Capability Production Document dated 8 August 2006. The quantity of aircraft for each Block 1 & Block 5 modification varies depending on when the capability was cut into production. In FY21 and out, the R&M funding will be used to conduct other R&M modifications as required and quantities will vary based on funding and user requirements.

This program will revise quantities based on updated user requirements, aircraft availability, and as funding permits.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

Under this effort the Contractor may provide manufacturing, installation, and acceptance testing to all reliability and maintainability modifications on MQ-9 aircraft and ground based systems.

This mod also includes updates to the MALET Stand Alone Trainer (MSAT) family of systems configuration simulator.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

**Milestone/Development Status**

The MQ-9 program will continue to develop, test, and recommend reliability, maintainability, availability, sustainability, and safety enhancements and solutions for implementation on the MQ-9 platform and ground based systems in an effort to improve aircraft and payload availability and reduce lifecycle costs.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9159 / R&M enhancements	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Reliability & Maintainability			<b>Related RDT&amp;E PEs:</b> 0205219F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<i>Modification Item 1 of 1: R&amp;M Enhancements</i>						
A Kits						
Recurring						
R&M Enhancements:INSTALL KITS Group A (Active)	170 / 6.650	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 6.650	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
R&M Enhancements:EQUIPMENT Group B (Active)	170 / 62.364	- / 8.023	- / 6.782	- / 4.100	- / -	- / 4.100
<i>Subtotal: Recurring</i>	- / 62.364	- / 8.023	- / 6.782	- / 4.100	- / -	- / 4.100
<i>Subtotal: R&amp;M Enhancements</i>	- / 69.014	- / 8.023	- / 6.782	- / 4.100	- / -	- / 4.100
<i>Subtotal: Procurement, All Modification Items</i>	- / 69.014	- / 8.023	- / 6.782	- / 4.100	- / -	- / 4.100
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 5.290	- / 1.091	- / 1.000	- / 0.590	- / -	- / 0.590
<i>Subtotal: Support</i>	- / 5.290	- / 1.091	- / 1.000	- / 0.590	- / -	- / 0.590
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>74.304</b>	<b>9.114</b>	<b>7.782</b>	<b>4.690</b>	<b>0.000</b>	<b>4.690</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	
<b>Modification Number / Title:</b> 9159 / R&M enhancements		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 1 of 1:</b> R&M Enhancements	
<b>Manufacturer Information</b>			
Manufacturer Name: General Atomics ASI		Manufacturer Location: Poway CA	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 170	

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9164 / Extended Range MQ-9

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	290.276	51.362	11.695	6.350	0.000	6.350
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	290.276	51.362	11.695	6.350	0.000	6.350
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>290.276</b>	<b>51.362</b>	<b>11.695</b>	<b>6.350</b>	<b>0.000</b>	<b>6.350</b>

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

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

**Description:**

This program adds Extended Range (ER) capability to the MQ-9 aircraft. Candidate aircraft modifications include, but are not limited to, external fuel tanks with shipping containers, 4-bladed propellers with shipping containers, engine modifications, fuel system modifications, use of retrofit facility space, and software modifications. Current plan is to modify all MQ-9 aircraft to the ER configuration. This program will revise quantities based on updated user requirements and as funding permits.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

The ER modification will be upgrading 113 Block 1 aircraft and 136 Block 5 aircraft per the users identified requirements, but quantities may vary after accounting for adjustments due to aircraft attrition and production cut-in of the ER capability. Overseas Contingency Operations (OCO) funded modifications will have the installations paid for at contract award, but installations will not occur until kits begin to deliver. All other program office installations will be paid for in the year the installations actually occur.

Requirement for this modification was validated by the Chairman of the Joint Chiefs of Staff in conjunction with the Warfighter Senior Integration Group in response to an Urgent Operational Need.

Quantities in FY18 and onward are Block 5 only.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

**Milestone/Development Status**

The Air Force delivered 44 modified Block 1 ER aircraft by July 2016 to meet a Joint Urgent Operational Need (JUON). Per the user's requirement, the final 64 Block 1 ER modification are complete as of May 2020. There are a total of 106 Block 1 ER aircraft in the fleet. No additional Block 1 aircraft are programmed to receive the ER modification. Block 5 aircraft are programmed to be modified to the ER configuration. ER modification will continue to upgrade the remaining delta of 136 Block 5 aircraft.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9164 / Extended Range MQ-9	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0205219F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> Extended Range MQ-9						
A Kits						
Recurring						
Extended Range MQ-9:INSTALL KITS Group A (Active)	231 / 26.903	26 / 5.608	36 / 0.822	10 / 0.953	- / -	10 / 0.953
<b>Subtotal: Recurring</b>	- / 26.903	- / 5.608	- / 0.822	- / 0.953	- / -	- / 0.953
B Kits						
Recurring						
Extended Range MQ-9:EQUIPMENT Group B (Active)	231 / 229.694	26 / 40.522	36 / 8.316	10 / 4.515	- / -	10 / 4.515
<b>Subtotal: Recurring</b>	- / 229.694	- / 40.522	- / 8.316	- / 4.515	- / -	- / 4.515
<b>Subtotal: Extended Range MQ-9</b>	- / 256.597	- / 46.130	- / 9.138	- / 5.468	- / -	- / 5.468
<b>Subtotal: Procurement, All Modification Items</b>	- / 256.597	- / 46.130	- / 9.138	- / 5.468	- / -	- / 5.468
<b>Support (All Modification Items)</b>						
OTHER GOVT	- / 16.449	- / 3.332	- / 2.124	- / 0.647	- / -	- / 0.647
<b>Subtotal: Support</b>	- / 16.449	- / 3.332	- / 2.124	- / 0.647	- / -	- / 0.647
<b>Installation</b>						
<b>Modification Item 1 of 1:</b> Extended Range MQ-9	141 / 17.230	67 / 1.900	46 / 0.433	36 / 0.235	- / -	36 / 0.235
<b>Subtotal: Installation</b>	141 / 17.230	67 / 1.900	46 / 0.433	36 / 0.235	- / -	36 / 0.235
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>290.276</b>	<b>51.362</b>	<b>11.695</b>	<b>6.350</b>	<b>0.000</b>	<b>6.350</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9164 / Extended Range MQ-9
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Extended Range MQ-9

**Manufacturer Information**

Manufacturer Name: General Atomics - ASI	Manufacturer Location: Poway, CA
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Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Mar 2021	Mar 2022	Mar 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	141 / 17.230	67 / 0.000	23 / 0.000	- / -	- / -	- / -
FY 2020	- / -	0 / 1.900	23 / 0.000	3 / 0.000	- / -	3 / 0.000
FY 2021	- / -	- / -	0 / 0.433	33 / 0.235	- / -	33 / 0.235
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	141 / 17.230	67 / 1.900	46 / 0.433	36 / 0.235	- / -	36 / 0.235

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	18	18	16	15	14	14	9	9	9	9	9	9
Out	18	18	18	16	15	14	14	9	9	9	9	9

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods			<b>Modification Number / Title:</b> 9167 / MQ-9 Upgrade		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		289.155	176.494	89.642	130.972	0.000	130.972
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )		289.155	176.494	89.642	130.972	0.000	130.972
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>289.155</b>	<b>176.494</b>	<b>89.642</b>	<b>130.972</b>	<b>0.000</b>	<b>130.972</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )		-	-	-	-	-	-

**Description:**

The MQ-9 Upgrade program fields new capabilities for the MQ-9 fleet. This program integrates the approved MQ-9 Upgrade Agile Acquisition Strategy, the associated technology maturation efforts, and fielding and sustainment of capabilities associated with Operational Flight Profile releases.

MQ-9 Unmanned Aircraft System retrofits those capabilities into the MQ-9 Block 1 and Block 5 platform as required. Although the content of the OFP releases may change in response to changing mission requirements, at this time releases include, but are not limited to, implementing enhanced data processing & dissemination, high definition electro-optical/infra-red (EO/IR) imagery with the DAS-4 and/or alternative EO/IR sensor, enhanced and redundant power, autonomous systems, artificial Intelligence, upgraded data links, mission assurance and resiliency, improved weapon system security, Link-16, Open Mission Systems, and enhanced weapons integration & targeting capabilities across the MQ-9 enterprise. Due to the Agile Acquisition process, retrofit priorities will be determined and executed by Technology Maturation Effort (TME) maturity, aircraft availability, and operational needs.

Requirement for this modification is validated in the MQ-9 Capability Production Document dated 8 August 2006.

This program will revise quantities based on updated user requirements and as funding permits.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

There are multiple capabilities (within each element of the P-3a) being added to the aircraft, thus the quantities are overstated. Each element will be installed based upon fleet requirements to get to a baseline for that specific capability release.

The quantity of aircraft for each modification varies depending on when the capability was cut into production. For the DAS-4 retrofit, or alternate EO/IR solution, the program planned to modify Block 5 and Block 1 aircraft delivered with or without DAS-4. For the software release retrofits, the program planned to modify Block 5 and Block 1 aircraft as required.

The increase of Other Government Support costs is due to additional MQ-9 Upgrade Retrofits programs and adjustments made from transitioning support from aircraft production to modernizing the fleet through retrofit program(s) to support warfighter and Combatant Command requirements.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.





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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9167 / MQ-9 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0205219F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<b>Modification Item 1 of 2: DAS-4 EO/IR Sensor</b>						
A Kits						
Recurring						
DAS-4 EO/IR Sensor:INSTALL KITS Group A (Active)	125 / 0.000	108 / 0.000	69 / 0.001	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.001	- / -	- / -	- / -
B Kits						
Recurring						
DAS-4 EO/IR Sensor:EQUIPMENT Group B (Active)	125 / 259.180	108 / 119.371	69 / 37.132	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 259.180	- / 119.371	- / 37.132	- / -	- / -	- / -
<i>Subtotal: DAS-4 EO/IR Sensor</i>	- / 259.180	- / 119.371	- / 37.133	- / -	- / -	- / -
<b>Modification Item 2 of 2: MQ-9 Upgrade</b>						
A Kits						
Recurring						
MQ-9 Upgrade:INSTALL KITS Group A (Active)	- / -	- / 9.923	100 / 11.652	259 / 35.590	- / -	259 / 35.590
<i>Subtotal: Recurring</i>	- / -	- / 9.923	- / 11.652	- / 35.590	- / -	- / 35.590
B Kits						
Recurring						
MQ-9 Upgrade:EQUIPMENT Group B (Active)	50 / 6.660	110 / 39.696	639 / 38.875	369 / 80.307	- / -	369 / 80.307
<i>Subtotal: Recurring</i>	- / 6.660	- / 39.696	- / 38.875	- / 80.307	- / -	- / 80.307
<i>Subtotal: MQ-9 Upgrade</i>	- / 6.660	- / 49.619	- / 50.527	- / 115.897	- / -	- / 115.897
<i>Subtotal: Procurement, All Modification Items</i>	- / 265.840	- / 168.990	- / 87.660	- / 115.897	- / -	- / 115.897
<b>Support (All Modification Items)</b>						
OTHER GOVT						
	- / 23.315	- / 7.504	- / 1.982	- / 15.075	- / -	- / 15.075
<i>Subtotal: Support</i>	- / 23.315	- / 7.504	- / 1.982	- / 15.075	- / -	- / 15.075
<b>Installation</b>						
<b>Modification Item 2 of 2: MQ-9 Upgrade</b>						
	- / -	- / -	- / -	100 / 0.000	- / -	100 / 0.000
<i>Subtotal: Installation</i>	- / -	- / -	- / -	100 / 0.000	- / -	100 / 0.000
<b>Total</b>						

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 9167 / MQ-9 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0205219F	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total Cost (Procurement + Support + Installation)</b>	289.155	176.494	89.642	130.972	0.000	130.972

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	
<b>Modification Number / Title:</b> 9167 / MQ-9 Upgrade		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	
<b>MDAP/MAIS Code:</b>		<b>Modification Item 1 of 2:</b> DAS-4 EO/IR Sensor	
<b>Manufacturer Information</b>			
Manufacturer Name: Raytheon		Manufacturer Location: McKinney, TX	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 22	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jan 2020	Jan 2021	
Delivery Dates	Nov 2021	Nov 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 302	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 9167 / MQ-9 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 2:** MQ-9 Upgrade

**Manufacturer Information**

Manufacturer Name: General Atomics, ASI	Manufacturer Location: Poway, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates		Dec 2020	Jan 2022
Delivery Dates		Dec 2021	Jan 2023

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	100 / 0.000	- / -	100 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	- / -	100 / 0.000	- / -	100 / 0.000

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022							
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
	0		-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25
		0	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	<b>Modification Number / Title:</b> 1 / MQ-9 Low Cost Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	14.570	0.000	2.000	2.000	0.000	2.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	14.570	0.000	2.000	2.000	0.000	2.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>14.570</b>	<b>0.000</b>	<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>2.000</b>

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

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

**Description:**

This effort enables the execution of low cost modifications in a timely manner. This program will revise quantities based on updated user requirements and as funding permits.

Funding may be used, but is not limited to, for MQ-9 Bridge or Life Of Type Buys (LOTB) to address enterprise DMS (Diminishing Manufacturing Sources) issues. The LOTB requirement may include quantities beyond established aircraft levels, as risk mitigation to prevent high cost Non-Recurring Engineering (NRE). Funding may also be used for support equipment or Government Furnished Equipment (GFE) retrofit requirements, Alternate Mission Equipment (AME), and alternate EO/IR solutions.

Under this effort the contractor shall provide manufacturing, installation, and acceptance testing of low cost modifications on MQ-9 aircraft and ground based systems.

The Air Force continues to evaluate options to reduce lifecycle costs for the EO/IR sensor for the MQ-9A platform which could include dual sourcing an alternative material EO/IR solution.

Milestone/Development Status

Development is ongoing.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods		<b>Modification Number / Title:</b> 1 / MQ-9 Low Cost Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Reliability & Maintainability			<b>Related RDT&amp;E PEs:</b> 0205219F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>RDT&amp;E PE #</b>						
0205219F	- / 1,469.664	- / 127.296	- / 162.080	- / 108.372	- / -	- / 108.372
<b>Procurement</b>						
<b>Modification Item 1 of 1:</b> MQ-9 Low Cost Mods						
A Kits						
Recurring						
MQ-9 Low Cost Mods:INSTALL KITS Group A (Active)	0 / 0.734	- / -	- / -	0 / 0.000	- / -	0 / 0.000
<i>Subtotal: Recurring</i>	<i>- / 0.734</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.000</i>
B Kits						
Recurring						
MQ-9 Low Cost Mods:EQUIPMENT Group B (Active)	0 / 13.836	- / 0.000	- / 2.000	0 / 2.000	- / -	0 / 2.000
<i>Subtotal: Recurring</i>	<i>- / 13.836</i>	<i>- / 0.000</i>	<i>- / 2.000</i>	<i>- / 2.000</i>	<i>- / -</i>	<i>- / 2.000</i>
<i>Subtotal: MQ-9 Low Cost Mods</i>	<i>- / 14.570</i>	<i>- / 0.000</i>	<i>- / 2.000</i>	<i>- / 2.000</i>	<i>- / -</i>	<i>- / 2.000</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 14.570</i>	<i>- / 0.000</i>	<i>- / 2.000</i>	<i>- / 2.000</i>	<i>- / -</i>	<i>- / 2.000</i>
<b>Installation</b>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>14.570</b>	<b>0.000</b>	<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>2.000</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> PRDTB2 / MQ-9 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> MQ-9 Low Cost Mods			
<b>Manufacturer Information</b>			
Manufacturer Name: General Atomics - ASI		Manufacturer Location: Poway, CA	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 1	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> PRDTB3 / MQ-9 UAS Payloads
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> 0305206F	<b>Other Related Program Elements:</b> 0305206F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	50.905	19.800	63.500	40.800	0.000	40.800	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	50.905	19.800	63.500	40.800	0.000	40.800	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>50.905</b>	<b>19.800</b>	<b>63.500</b>	<b>40.800</b>	<b>0.000</b>	<b>40.800</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	-	1.500	10.700	6.800	-	6.800	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The Gorgon Stare system is a podded airborne sensor suite that provides city-sized wide area motion imagery and is integrated on specially-modified MQ-9 Reaper Remotely Piloted Aircraft (RPA). The Air Force Requirements Oversight Council (AFROC) approved Air Combat Command's recommendation to transition Gorgon Stare from a Quick Reaction Capability (QRC) to an Air Force Enduring Capability in November 2014. Gorgon Stare's requirements are documented in the Gorgon Stare Wide Area Airborne Sensor draft Capabilities Development Document. The acquisition strategy for this Air Force podded sensor suite solution is sustainment of the currently fielded capabilities with any upgrades implemented via validated -1067s, Urgent Operational Needs, or requirements as documented in the program CDD. Gorgon Stare operations supports JUON CC-0534, which the Joint Rapid Acquisition Cell (JRAC) dispositioned for sustainment.

As of fourth quarter FY 2020, the Air Force inventory for Gorgon stare includes the following: eight (8) Gorgon Stare II pod sets, five (5) Gorgon Stare Mission Controllers (GSMCs), three (3) Gorgon Stare Archive Managers (GSAMs), seven (7) specially-modified MQ-9 Reaper RPAs, and one System Integration Laboratory (SIL). Two specially-modified MQ-9 Reaper and Gorgon Stare II pod sets were lost during combat missions (one in FY19 and one in FY20).

FY 2020 funding totals include \$21.3M in Overseas Contingency Operations.

FY 2021 funding totals include \$74.2M in Overseas Contingency Operations.

FY 2022 funding totals include \$47.6M in Overseas Contingency Operations.

Due to Gorgon Stare's prolonged commitment to OCO, the acquisition program manager has the authority to redirect funding as necessary to meet current states and emerging Combatant Commander requirements to better meet the war fighting objectives. The Gorgon Stare program is managed by the 645th Aeronautical Systems Group. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues. Funding for this exhibit is contained in PE 0305206F.

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
PRDTB3 / MQ-9 UAS Payloads

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0305206F **Other Related Program Elements:** 0305206F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	9169 / Gorgon Stare (Capability Improvement)		A		- / 50.905	- / 19.800	- / 63.500	- / 40.800	- / 0.000	- / 40.800
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 50.905</b>	<b>- / 19.800</b>	<b>- / 63.500</b>	<b>- / 40.800</b>	<b>- / 0.000</b>	<b>- / 40.800</b>

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

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

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB3 / MQ-9 UAS Payloads	<b>Modification Number / Title:</b> 9169 / Gorgon Stare

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	50.905	19.800	63.500	40.800	0.000	40.800
Less PY Advance Procurement ( <i>\$ in Millions</i> )	0.000	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	50.905	19.800	63.500	40.800	0.000	40.800
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>50.905</b>	<b>19.800</b>	<b>63.500</b>	<b>40.800</b>	<b>0.000</b>	<b>40.800</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	7.716	1.500	10.700	6.800	0.000	6.800
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

The Gorgon Stare system is a podded airborne sensor suite that provides city-sized wide area motion imagery and is integrated on specially-modified MQ-9 Reaper Remotely Piloted Aircraft (RPA). The Air Force Requirements Oversight Council (AFROC) approved Air Combat Command's recommendation to transition Gorgon Stare from a Quick Reaction Capability (QRC) to an Air Force Enduring Capability in November 2014. Gorgon Stare's requirements are documented in the Gorgon Stare Wide Area Airborne Sensor draft Capabilities Development Document. The acquisition strategy for this Air Force podded sensor suite solution is sustainment of the currently fielded capabilities with any upgrades implemented via validated -1067s, Urgent Operational Needs, or requirements as documented in the program CDD. Gorgon Stare operations supports JUON CC-0534, which the Joint Rapid Acquisition Cell (JRAC) dispositioned for sustainment.

As of fourth quarter FY 2020, the Air Force inventory for Gorgon stare includes the following: eight (8) Gorgon Stare pod sets, five (5) Gorgon Stare Mission Controllers (GSMCs), three (3) Gorgon Stare Archive Managers (GSAMs), seven (7) specially-modified MQ-9 Reaper RPAs, and one System Integration Laboratory (SIL). Two specially-modified MQ-9 Reaper and Gorgon Stare II pod sets were lost during combat missions (one in FY19 and one in FY20).

Prior years funding included a \$20M Congressional Add and a \$2.905M below threshold reprogramming for the purchase of a tenth podset (which delivered in FY20), \$216K for initial spares, and \$5M for MAVEN hardware procurement in FY18. In FY19, it included \$16M (spares included) in Overseas Contingency Operations (OCO) for a pod set processor upgrade, \$7.5M (spares included) for a data storage unit pod set upgrade, and an additional \$7.0M via the ISR Transfer Fund to procure artificial intelligence (AI) ready hardware supporting Project Maven specific upgrades.

FY 2020 funding totals include \$21.3M in OCO/Direct War funding, to include \$21.3M (spares included) for hardware necessary to support Beyond Line Of Sight (BLOS) Phase II modifications.

FY 2021 funding totals include \$74.2M OCO/Direct War funding to procure 7 kits total. This includes \$46.2M (spares included) for 5x IR sensor Diminishing Manufacturing Sources (DMS) for two (2) combat lines and \$28.2M for 2x Gorgon Stare combat loss replacements. Procurement of Full Field of View (FFoV) Tagging and Tracking (T&T) kits has been delayed, both to better align with ongoing development efforts and enable the procurement of combat replacement pods. Additionally, procurement of AI processor kits were combined with the DMS processor replacement program currently underway.

FY 2022 funding totals include \$47.6M in OCO/Direct War funding, to include \$35.2M (spares included) for IR Sensor DMS for the remaining two (2) combat lines, \$3.2M for tip and cue kits, and \$9.4M for Image Quality Enhancements (IQE) Phase 2 kits.

Due to Gorgon Stare's prolonged commitment to OCO, the acquisition program manager has the authority to redirect funding as necessary to meet current and emerging Combatant Commander requirements to better meet the war fighting objectives. The Gorgon Stare program is managed by the 645th Aeronautical Systems Group. Funding for this exhibit is contained in PE 0305206F.

Milestone/Development Status



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> PRDTB3 / MQ-9 UAS Payloads		<b>Modification Number / Title:</b> 9169 / Gorgon Stare	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> MQ-9		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b>		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> Gorgon Stare						
B Kits						
Recurring						
Gorgon Stare:EQUIPMENT Group B (Active)	27 / 50.905	8 / 19.800	7 / 63.500	21 / 40.800	- / -	21 / 40.800
<i>Subtotal: Recurring</i>	- / 50.905	- / 19.800	- / 63.500	- / 40.800	- / -	- / 40.800
<i>Subtotal: Gorgon Stare</i>	- / 50.905	- / 19.800	- / 63.500	- / 40.800	- / -	- / 40.800
<i>Subtotal: Procurement, All Modification Items</i>	- / 50.905	- / 19.800	- / 63.500	- / 40.800	- / -	- / 40.800
<b>Support (All Modification Items)</b>						
GROUP B: TOTAL NONRECURRING	- / 0.000	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> Gorgon Stare	- / -	2 / 0.000	29 / 0.000	4 / 0.000	0 / 0.000	4 / 0.000
<i>Subtotal: Installation</i>	- / -	2 / -	29 / -	4 / -	0 / 0.000	4 / 0.000
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>50.905</b>	<b>19.800</b>	<b>63.500</b>	<b>40.800</b>	<b>0.000</b>	<b>40.800</b>

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> PRDTB3 / MQ-9 UAS Payloads	<b>Modification Number / Title:</b> 9169 / Gorgon Stare
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Gorgon Stare

**Manufacturer Information**

Manufacturer Name: SNC	Manufacturer Location: Sparks, NV
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Jun 2020	Dec 2020	Jun 2022
Delivery Dates	Jun 2021	Dec 2021	Jun 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 0.000	25 / 0.000	- / -	- / -	- / -
FY 2020	- / -	- / -	4 / 0.000	4 / 0.000	0 / 0.000	4 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	2 / 0.000	29 / 0.000	4 / 0.000	0 / 0.000	4 / 0.000

**Installation Schedule**

PYS	Q1	FY 2020				FY 2021				FY 2022			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	0	1	1	-	-	-	25	2	2	2	2	-	-
Out	0	1	1	-	-	-	25	2	2	2	2	-	-

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0401314F	Other Related Program Elements: 0401314F
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	0.000	23.554	-	23.554	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	0.000	23.554	-	23.554	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>0.000</b>	<b>0.000</b>	<b>23.554</b>	-	<b>23.554</b>	-	-	-	-	-	-

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

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

**Description:**

The SLC3S-A Enhancements effort provides the capability to rapidly acquire, integrate in the Systems Integration Lab (SIL), modify, install and test new airborne communications technologies for two (2) VC-25A, four (4) C-32-A, four (4) C-40B, sixteen (16) C-37A/B Executive Airlift aircraft. These modifications consist of Top Secret/Sensitive Compartmented Information (TS/SCI), Secret (S), and Unclassified voice/data/video architecture enhancements enabling Senior Leaders to make time critical decisions and manage crisis actions while airborne.

These efforts ensure National Senior Leaders have redundant protected, survivable, and secure satellite, air-to-air, and air-to-ground communications for modern business enterprise systems and Command and Control functions globally while airborne. In addition to the aforementioned modifications, this funding implements National Leadership Command Capability Senior Leader Communications Council actions to correct mission communication system failures and address imminent capability and/or training deltas.

SLC3S-A unit kit costs are dependent on the starting configuration of each aircraft before modification, the communication upgrades required in the budget year and the associated installation costs.

**UNCLASSIFIED**

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
SLC3SA / Senior Leader C3, System - Aircraft

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0401314F **Other Related Program Elements:** 0401314F

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

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a***	C-40 - SLC3SA / C-40 - SLC3SA (Capability Improvement)				- / -	- / -	- / -	- / 3.570	- / -	- / 3.570
P-40a***	VC-25A - SLC3SA / VC-25A - SLC3SA (Capability Improvement)				- / -	- / -	- / -	- / 0.098	- / -	- / 0.098
P-3a	1 / C-32 - SLC3SA (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 6.437	- / 0.000	- / 6.437
P-3a	2 / C-37 - SLC3SA (Capability Improvement)		B		- / -	- / 0.000	- / 0.000	- / 13.449	- / 0.000	- / 13.449
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / 0.000	- / 0.000	- / 23.554	- / -	- / 23.554

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

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

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

**Justification:**  
 This program, P-3A Mod C-32 - SLC3SA, C-32 - SLC3SA, is a new start.  
 This program, P-3A Mod C-37 - SLC3SA, C-37 - SLC3SA, is a new start.  
 This program, P-3A Mod C-40 - SLC3SA, C-40 - SLC3SA, is a new start.  
 This program, P-3A Mod VC-25A - SLC3SA, VC-25A - SLC3SA, is a new start.

FY22: 2 C-32A's will receive Senior Leader Communications enhancements consisting of, but not limited to: bandwidth aggregation, In-flight Information (IFI), Commercial WiFi, Airborne Executive Phone-Enhanced (AEP-E), and tech refresh.

FY22: 4 C-37A/B's will receive Senior Leader Communications enhancements consisting of, but not limited to: In-Flight Information, Commercial WiFi, and Ka SATCOM capability, Airborne Executive Phone-Enhanced (AEP-E), tech refresh.

FY22: 2 C-40B's will receive Senior Leader Communications enhancements consisting of, but not limited to: M3 Modem, bandwidth aggregation, In-flight Information (IFI), Commercial WiFi, Airborne Executive Phone-Enhanced (AEP-E), and tech refresh.

FY22: Funding is loaded for VC-25A in anticipation of emerging senior leader communications capability requirements



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft	<b>Modification Number / Title:</b> 1 / C-32 - SLC3SA
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	0.000	6.437	0.000	6.437
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	0.000	6.437	0.000	6.437
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	-	<b>0.000</b>	<b>0.000</b>	<b>6.437</b>	<b>0.000</b>	<b>6.437</b>

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

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

**Description:**

This program, P-3A Mod C-32 - SLC3SA, C-32 - SLC3SA, is a new start.

The SLC3S-A Enhancements effort provides the capability to rapidly acquire, integrate in the Systems Integration Lab (SIL), modify, install and test new airborne communications technologies for four (4) C-32A Executive Airlift aircraft. These modifications consist of Top Secret/Sensitive Compartmented Information (TS/SCI), Secret (S), and Unclassified voice/data/video architecture enhancements enabling Senior Leaders to make time critical decisions and manage crisis actions while airborne.

These efforts ensure National Senior Leaders have redundant protected, survivable, and secure satellite, air-to-air, and air-to-ground communications for modern business enterprise systems and Command and Control functions globally while airborne. In addition to the aforementioned modifications, this funding implements National Leadership Command Capability Senior Leader Communications Council actions to correct mission communication system failures and address imminent capability and/or training deltas.

SLC3S-A unit kits costs are dependent on the starting configuration of each aircraft before modification, the communication upgrades required in the budget year and the associated installation costs.

FY22: two C-32As will be upgraded with Senior Leader Communications enhancements consisting of, but not limited to: bandwidth aggregation, In-flight Information (IFI), Commercial WiFi, Airborne Executive Phone-Enhanced (AEP-E), and technology upgrades.

Milestone/Development Status

Commercial-off-the-shelf item with non-recurring engineering for integration.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force						<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft			<b>Modification Number / Title:</b> 1 / C-32 - SLC3SA	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> C-32A		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401314F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<i>Modification Item 1 of 1:</i> MCS Upgrade (3)							
A Kits							
Recurring							
MCS Upgrade:INSTALL KITS Group A (Active)							
	-	-	-	2 / 2.333	-	2 / 2.333	
<i>Subtotal: Recurring</i>							
	-	-	-	- / 2.333	-	- / 2.333	
B Kits							
Recurring							
MCS Upgrade:EQUIPMENT Group B (Active)							
	-	-	-	2 / 1.604	-	2 / 1.604	
<i>Subtotal: Recurring</i>							
	-	-	-	- / 1.604	-	- / 1.604	
<i>Subtotal: MCS Upgrade (3)</i>							
	-	-	-	- / 3.937	-	- / 3.937	
<i>Subtotal: Procurement, All Modification Items</i>							
	-	-	-	- / 3.937	-	- / 3.937	
<b>Support (All Modification Items)</b>							
GROUP A: TOTAL NONRECURRING							
	-	-	-	- / 1.000	-	- / 1.000	
<i>Subtotal: Support</i>							
	-	-	-	- / 1.000	-	- / 1.000	
<b>Installation</b>							
<i>Modification Item 1 of 1:</i> MCS Upgrade (3)							
	-	-	-	2 / 1.500	-	2 / 1.500	
<i>Subtotal: Installation</i>							
	-	-	-	2 / 1.500	-	2 / 1.500	
<b>Total</b>							
<b>Total Cost (Procurement + Support + Installation)</b>							
	-	0.000	0.000	6.437	0.000	6.437	

**UNCLASSIFIED**

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft	<b>Modification Number / Title:</b> 1 / C-32 - SLC3SA
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

**Modification Item 1 of 1:** MCS Upgrade (3)

**Manufacturer Information**

Manufacturer Name: L3Harris Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 2

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Oct 2021
Delivery Dates			Dec 2021

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	2 / 1.500	- / -	2 / 1.500
<b>Total</b>	- / -	- / -	- / -	2 / 1.500	- / -	2 / 1.500

**Installation Schedule**

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft	<b>Modification Number / Title:</b> 2 / C-37 - SLC3SA

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B			<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	0.000	13.449	0.000	13.449
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	0.000	13.449	0.000	13.449
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	-	<b>0.000</b>	<b>0.000</b>	<b>13.449</b>	<b>0.000</b>	<b>13.449</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	-	-	-	-	-	-

**Description:**

This program, P-3A Mod C-37 - SLC3SA, C-37 - SLC3SA, is a new start.

The SLC3S-A Enhancements effort provides the capability to rapidly acquire, integrate in the Systems Integration Lab (SIL), modify, install and test new airborne communications technologies for sixteen (16) C-37A/B Executive Airlift aircraft. These modifications consist of Top Secret/Sensitive Compartmented Information (TS/SCI), Secret (S), and Unclassified voice/data/video architecture enhancements enabling Senior Leaders to make time critical decisions and manage crisis actions while airborne.

These efforts ensure National Senior Leaders have redundant protected, survivable, and secure satellite, air-to-air, and air-to-ground communications for modern business enterprise systems and Command and Control functions globally while airborne. In addition to the aforementioned modifications, this funding implements National Leadership Command Capability Senior Leader Communications Council actions to correct mission communication system failures and address imminent capability and/or training deltas.

SLC3S-A unit kits costs are dependent on the starting configuration of each aircraft before modification, the communication upgrades required in the budget year and the associated installation costs.

FY22: four C-37A/B's will be upgraded with Senior Leader Communications enhancements consisting of, but not limited to: In-Flight Information, Commercial WiFi, and Ka SATCOM capability, Airborne Executive Phone-Enhanced (AEP-E), and technology upgrades.

**Milestone/Development Status**

Commercial-off-the-shelf item with non-recurring engineering for integration.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft		<b>Modification Number / Title:</b> 2 / C-37 - SLC3SA	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> C-37		<b>Modification Type:</b> Capability Improvement		<b>Related RDT&amp;E PEs:</b> 0401314F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> MCS Upgrade (2)						
A Kits						
Recurring						
MCS Upgrade:INSTALL KITS Group A (Active)	- / -	- / -	- / -	4 / 8.237	- / -	4 / 8.237
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 8.237</i>	<i>- / -</i>	<i>- / 8.237</i>
B Kits						
Recurring						
MCS Upgrade:EQUIPMENT Group B (Active)	- / -	- / -	- / -	4 / 2.750	- / -	4 / 2.750
<i>Subtotal: Recurring</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.750</i>	<i>- / -</i>	<i>- / 2.750</i>
<i>Subtotal: MCS Upgrade (2)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 10.987</i>	<i>- / -</i>	<i>- / 10.987</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 10.987</i>	<i>- / -</i>	<i>- / 10.987</i>
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / -	- / -	- / -	- / 0.462	- / -	- / 0.462
<i>Subtotal: Support</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.462</i>	<i>- / -</i>	<i>- / 0.462</i>
<b>Installation</b>						
<i>Modification Item 1 of 1:</i> MCS Upgrade (2)						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>4 / 2.000</i>	<i>- / -</i>	<i>4 / 2.000</i>
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>-</b>	<b>0.000</b>	<b>0.000</b>	<b>13.449</b>	<b>0.000</b>	<b>13.449</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> SLC3SA / Senior Leader C3, System - Aircraft	<b>Modification Number / Title:</b> 2 / C-37 - SLC3SA
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** MCS Upgrade (2)

**Manufacturer Information**

Manufacturer Name: L3Harris Technologies	Manufacturer Location: Greenville, TX
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 10

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Oct 2021
Delivery Dates			Aug 2022

**Installation Information**

**Method of Implementation:** Contractor Facility

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	4 / 2.000	- / -	4 / 2.000
<b>Total</b>	- / -	- / -	- / -	4 / 2.000	- / -	4 / 2.000

**Installation Schedule**

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

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0401318F
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**Line Item MDAP/MAIS Code:** 212

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	340.367	65.348	119.396	158.162	0.000	158.162	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	340.367	65.348	119.396	158.162	0.000	158.162	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>340.367</b>	<b>65.348</b>	<b>119.396</b>	<b>158.162</b>	<b>0.000</b>	<b>158.162</b>	-	-	-	-	-	-

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

Initial Spares ( <i>\$ in Millions</i> )	1.123	-	6.574	10.525	-	10.525	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The CV-22 is the Air Force Special Operations Forces (SOF) variant of the joint multi-mission V-22 tilt rotor aircraft. The CV-22 provides long-range, high-speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. The Navy is the lead service for the Joint V-22 program. The Joint Program Manager is responsible for managing all variants of the V-22. Department of the Navy (DoN) funds the development of the MV-22 and CMV-22. The Air Force funds the service-common portion of the CV-22 while United States Special Operations Command (USSOCOM) funds the development and procurement of SOF peculiar systems. The designed service life for the aircraft is 10,000 flying hours over 30 years.

Funding for this exhibit contained in PE 0401318F.

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

FY21 funding totals include 6.290M for Overseas Contingency Operations (OCO). The funding will be used to procure kits and install Tactical Network (TACNET) Receivers, wiring, and antennas. These kits provide Link 16 capability to provide situational awareness, threat avoidance, sensor points of interest, and fratricide prevention through datalink communication with other airborne and ground forces.

The FY2022 funding request was reduced by 2.746M to account for the availability of prior year execution balances.

FY21 6.290M of OCO funding will procure 20 Link-16 kits in support of Operation Inherent Resolve (OIR).

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

**Appropriation / Budget Activity / Budget Sub Activity:**  
3010F: Aircraft Procurement, Air Force / BA 05: Modification of Inservice Aircraft / BSA 5: Other Aircraft

**P-1 Line Item Number / Title:**  
V02200 / CV-22 Mods

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0401318F

**Line Item MDAP/MAIS Code:** 212

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	8790 / Block 20 Upgrade (Capability Improvement)		A		- / 318.962	- / 63.349	- / 117.397	- / 156.163	- / 0.000	- / 156.163
P-3a	1 / Low Cost Modifications (Other)		A		- / 21.405	- / 1.999	- / 1.999	- / 1.999	- / 0.000	- / 1.999
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 340.367</b>	<b>- / 65.348</b>	<b>- / 119.396</b>	<b>- / 158.162</b>	<b>- / 0.000</b>	<b>- / 158.162</b>

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

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

**Justification:**  
The primary modification budgeted in FY 2022 is the Block C/20 Upgrade.



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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>		<b>Date:</b> May 2021
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	318.962	63.349	117.397	156.163	0.000	156.163
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	318.962	63.349	117.397	156.163	0.000	156.163
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>318.962</b>	<b>63.349</b>	<b>117.397</b>	<b>156.163</b>	<b>0.000</b>	<b>156.163</b>

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

Initial Spares ( <i>\$ in Millions</i> )	1.123	-	6.574	10.525	-	10.525
Gross/Weapon System Unit Cost ( <i>\$ in Millions</i> )	-	-	-	-	-	-

**Description:**

Funds the retrofit of fielded CV-22 aircraft, flight training systems, and systems integration laboratories to the Block C/20 configuration. Modifications encompass numerous engineering change proposals (ECP) that have, or will be placed on contract to address a variety of CV-22 weapon system requirements. Additionally, these funds implement production kits and other equipment resulting from related RDT&E projects in the CV-22 Block C/20 program, including nacelle modifications and enhanced self-deployment capabilities.

The Block C/20 modification program improves readiness, operational safety, suitability, and effectiveness, corrects deficiencies identified during operational testing and/or field operations, improves aircraft reliability/maintainability, enhances the aircraft's self-deployment capability, enables unrestricted access to worldwide airspace, and enhances the effectiveness of defensive aircraft survivability systems. Whenever possible, ECPs/kits are installed in blocks to minimize aircraft down time and maximize efficiency. Some ECPs/kits are being incorporated on aircraft as they progress through the production line. Individual P-3As indicate which modifications are implemented at the Contract Field Team (CFT) or Organizational/Intermediate levels. Installation schedules reflect only CFT installs.

Funds also modify and retrofit systems experiencing obsolescing and/or diminishing manufacturing source (DMS) issues, aircraft support equipment, training devices, flight simulators, flight test support, and software. Funding for DMS, flight test support, and software is included in the nonrecurring engineering cost category.

**Milestone/Development Status**

CV-22 program RDT&E funding in PE 0401318F provides for development and testing activities associated with the Block C/20 program: Nacelle Modifications, Enhanced Self-Deployment, and Future Enhancement Capabilities.

Nacelle Modifications: Common nacelle modifications for both the CV-22 and MV-22 fleets will increase overall aircraft readiness/availability, reduce platform operating life cycle costs, and mitigate impacts to aircraft performance and survivability.

Enhanced Self-Deployment: Capabilities include improved ice protection, engine performance, navigation, communications, battle space awareness and networking/MDC2; electronic warfare; weapons systems; defensive avionics systems and architecture; weight reduction initiatives; modular avionics/cyber security implementation; and changes to the underlying aircraft systems necessary to enable these capabilities.

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods			<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F		
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>							
<b>Modification Item 1 of 26:</b> AC Bus Tie Impr/Manual Override Switches							
B Kits							
Recurring							
AC Bus Tie Impr/Manual Override Switches:EQUIPMENT Group B (Active)	51 / 0.498	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.498	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: AC Bus Tie Impr/Manual Override Switches</i>	- / 0.498	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 2 of 26:</b> Advanced Threat Warning System (JUON config)							
A Kits							
Recurring							
Advanced Threat Warning System (JUON config):INSTALL KITS Group A (Active)	40 / 32.961	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 32.961	- / -	- / -	- / -	- / -	- / -	
B Kits							
Recurring							
Advanced Threat Warning System (JUON config):EQUIPMENT Group B (Active)	27 / 6.024	12 / 11.796	15 / 14.750	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 6.024	- / 11.796	- / 14.750	- / -	- / -	- / -	
<i>Subtotal: Advanced Threat Warning System (JUON config)</i>	- / 38.985	- / 11.796	- / 14.750	- / -	- / -	- / -	
<b>Modification Item 3 of 26:</b> Advanced Threat Warning System (Series 2)							
B Kits							
Recurring							
Advanced Threat Warning System (Series 2):EQUIPMENT Group B (Active)	- / -	- / -	- / -	5 / 8.251	- / -	5 / 8.251	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 8.251	- / -	- / 8.251	
<i>Subtotal: Advanced Threat Warning System (Series 2)</i>	- / -	- / -	- / -	- / 8.251	- / -	- / 8.251	
<b>Modification Item 4 of 26:</b> Aluminum T/E Faring w/ Gusset							
B Kits							
Recurring							

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected: CV-22</b>		<b>Modification Type: Capability Improvement</b>			<b>Related RDT&amp;E PEs: 0401318F</b>	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Aluminum T/E Faring w/Gusset:EQUIPMENT Group B (Active)	- / -	- / -	- / -	13 / 0.018	- / -	13 / 0.018
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 0.018	- / -	- / 0.018
<i>Subtotal: Aluminum T/E Faring w/Gusset</i>	- / -	- / -	- / -	- / 0.018	- / -	- / 0.018
<b>Modification Item 5 of 26: ARC 210 Upgrade 1990A</b>						
B Kits						
Recurring						
ARC 210 Upgrade 1990A:EQUIPMENT Group B (Active)	- / -	- / -	12 / 0.096	24 / 0.192	- / -	24 / 0.192
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.096	- / 0.192	- / -	- / 0.192
<i>Subtotal: ARC 210 Upgrade 1990A</i>	- / -	- / -	- / 0.096	- / 0.192	- / -	- / 0.192
<b>Modification Item 6 of 26: Auto Dependent Surveillance-Broadcast ADSB/Out</b>						
B Kits						
Recurring						
Auto Dependent Surveillance-Broadcast ADSB/Out:EQUIPMENT Group B (Active)	51 / 3.092	- / -	48 / 0.334	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 3.092	- / -	- / 0.334	- / -	- / -	- / -
<i>Subtotal: Auto Dependent Surveillance-Broadcast ADSB/Out</i>	- / 3.092	- / -	- / 0.334	- / -	- / -	- / -
<b>Modification Item 7 of 26: Blk 20 Nacelle Mods/ Conversion Area Harness</b>						
B Kits						
Recurring						
Blk 20 Nacelle Mods/Conversion Area Harness:EQUIPMENT Group B (Active)	- / -	1 / 4.904	8 / 49.455	15 / 71.525	- / -	15 / 71.525
<i>Subtotal: Recurring</i>	- / -	- / 4.904	- / 49.455	- / 71.525	- / -	- / 71.525
<i>Subtotal: Blk 20 Nacelle Mods/Conversion Area Harness</i>	- / -	- / 4.904	- / 49.455	- / 71.525	- / -	- / 71.525
<b>Modification Item 8 of 26: Blk C ECP901</b>						
B Kits						
Recurring						
Blk C ECP901:EQUIPMENT Group B (Active)	21 / 14.765	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 14.765	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Blk C ECP901</i>	- / 14.765	- / -	- / -	- / -	- / -	- / -

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Modification Item 9 of 26:</b> Coanda Valve Reliability Improvement						
B Kits						
Recurring						
Coanda Valve Reliability Improvement:EQUIPMENT Group B (Active)	- / -	- / -	- / -	44 / 1.206	- / -	44 / 1.206
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.206	- / -	- / 1.206
<i>Subtotal: Coanda Valve Reliability Improvement</i>	- / -	- / -	- / -	- / 1.206	- / -	- / 1.206
<b>Modification Item 10 of 26:</b> Cockpit Voice Recorder/K-VADR ECP964						
B Kits						
Recurring						
Cockpit Voice Recorder/K-VADR ECP964:EQUIPMENT Group B (Active)	27 / 0.914	12 / 0.432	13 / 0.468	8 / 0.288	- / -	8 / 0.288
<i>Subtotal: Recurring</i>	- / 0.914	- / 0.432	- / 0.468	- / 0.288	- / -	- / 0.288
<i>Subtotal: Cockpit Voice Recorder/K-VADR ECP964</i>	- / 0.914	- / 0.432	- / 0.468	- / 0.288	- / -	- / 0.288
<b>Modification Item 11 of 26:</b> Data Transfer Unit Upgrade						
B Kits						
Recurring						
Data Transfer Unit Upgrade:EQUIPMENT Group B (Active)	51 / 1.020	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 1.020	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Data Transfer Unit Upgrade</i>	- / 1.020	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 12 of 26:</b> Drive Tube ECP929						
B Kits						
Recurring						
Drive Tube ECP929:EQUIPMENT Group B (Active)	10 / 0.563	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.563	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Drive Tube ECP929</i>	- / 0.563	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 13 of 26:</b> Electric Power System Upgrade (GCU)						
B Kits						
Recurring						

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Electric Power System Upgrade (GCU):EQUIPMENT Group B (Active)	- / -	- / -	- / -	13 / 1.100	- / -	13 / 1.100
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.100	- / -	- / 1.100
<i>Subtotal: Electric Power System Upgrade (GCU)</i>	- / -	- / -	- / -	- / 1.100	- / -	- / 1.100
<b>Modification Item 14 of 26:</b> Engine Thermo-Couple Wiring Harness ECP1075						
B Kits						
Recurring						
Engine Thermo-Couple Wiring Harness ECP1075:EQUIPMENT Group B (Active)	32 / 0.500	11 / 0.177	7 / 0.116	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.500	- / 0.177	- / 0.116	- / -	- / -	- / -
<i>Subtotal: Engine Thermo-Couple Wiring Harness ECP1075</i>	- / 0.500	- / 0.177	- / 0.116	- / -	- / -	- / -
<b>Modification Item 15 of 26:</b> Gen 5 Radio ECP866R1						
A Kits						
Recurring						
Gen 5 Radio ECP866R1:INSTALL KITS Group A (Active)	39 / 11.896	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 11.896	- / -	- / -	- / -	- / -	- / -
B Kits						
Recurring						
Gen 5 Radio ECP866R1:EQUIPMENT Group B (Active)	39 / 0.066	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.066	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Gen 5 Radio ECP866R1</i>	- / 11.962	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 16 of 26:</b> HF Radio (BLOS) ECP1041						
B Kits						
Recurring						
HF Radio (BLOS) ECP1041:EQUIPMENT Group B (Active)	33 / 6.403	6 / 1.172	6 / 1.172	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 6.403	- / 1.172	- / 1.172	- / -	- / -	- / -
<i>Subtotal: HF Radio (BLOS) ECP1041</i>	- / 6.403	- / 1.172	- / 1.172	- / -	- / -	- / -
<b>Modification Item 17 of 26:</b> Link 16						
B Kits						

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Recurring						
Link 16:EQUIPMENT Group B (Active)	- / -	- / -	20 / 6.290	18 / 5.802	- / -	18 / 5.802
<i>Subtotal: Recurring</i>	- / -	- / -	- / 6.290	- / 5.802	- / -	- / 5.802
<i>Subtotal: Link 16</i>	- / -	- / -	- / 6.290	- / 5.802	- / -	- / 5.802
<b>Modification Item 18 of 26: MAO VSLEDS</b>						
B Kits						
Recurring						
MAO VSLEDS:EQUIPMENT Group B (Active)	- / -	- / -	- / -	45 / 4.150	- / -	45 / 4.150
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 4.150	- / -	- / 4.150
<i>Subtotal: MAO VSLEDS</i>	- / -	- / -	- / -	- / 4.150	- / -	- / 4.150
<b>Modification Item 19 of 26: MCOI CAPRE</b>						
B Kits						
Recurring						
MCOI CAPRE:EQUIPMENT Group B (Active)	40 / 0.435	12 / 0.132	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.435	- / 0.132	- / -	- / -	- / -	- / -
<i>Subtotal: MCOI CAPRE</i>	- / 0.435	- / 0.132	- / -	- / -	- / -	- / -
<b>Modification Item 20 of 26: MCOI ECP873</b>						
B Kits						
Recurring						
MCOI ECP873:EQUIPMENT Group B (Active)	17 / 9.126	12 / 6.475	12 / 6.200	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 9.126	- / 6.475	- / 6.200	- / -	- / -	- / -
<i>Subtotal: MCOI ECP873</i>	- / 9.126	- / 6.475	- / 6.200	- / -	- / -	- / -
<b>Modification Item 21 of 26: Mode 5 APX-119 ECP935</b>						
B Kits						
Recurring						
Mode 5 APX-119 ECP935:EQUIPMENT Group B (Active)	36 / 2.288	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 2.288	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Mode 5 APX-119 ECP935</i>	- / 2.288	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 22 of 26: O2N2 Concentrator Sieve Bed Correction ECP1107</b>						
B Kits						
Recurring						

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>						<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods			<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F		
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
O2N2 Concentrator Sieve Bed Correction ECP1107:EQUIPMENT Group B (Active)	25 / 0.354	10 / 0.127	10 / 0.129	7 / 0.090	- / -	7 / 0.090	
<i>Subtotal: Recurring</i>	- / 0.354	- / 0.127	- / 0.129	- / 0.090	- / -	- / 0.090	
<i>Subtotal: O2N2 Concentrator Sieve Bed Correction ECP1107</i>	- / 0.354	- / 0.127	- / 0.129	- / 0.090	- / -	- / 0.090	
<b>Modification Item 23 of 26:</b> Prop Rotor Hub Spring & Drive Link Impr							
B Kits							
Recurring							
Prop Rotor Hub Spring & Drive Link Impr:EQUIPMENT Group B (Active)	11 / 2.448	- / -	2 / 0.446	12 / 2.672	- / -	12 / 2.672	
<i>Subtotal: Recurring</i>	- / 2.448	- / -	- / 0.446	- / 2.672	- / -	- / 2.672	
<i>Subtotal: Prop Rotor Hub Spring &amp; Drive Link Impr</i>	- / 2.448	- / -	- / 0.446	- / 2.672	- / -	- / 2.672	
<b>Modification Item 24 of 26:</b> Rudder Reliability ECP1020							
B Kits							
Recurring							
Rudder Reliability ECP1020:EQUIPMENT Group B (Active)	46 / 0.189	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.189	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Rudder Reliability ECP1020</i>	- / 0.189	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 25 of 26:</b> Troop Seat Pin ECP1167							
B Kits							
Recurring							
Troop Seat Pin ECP1167:EQUIPMENT Group B (Active)	- / -	21 / 0.116	31 / 0.171	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / -	- / 0.116	- / 0.171	- / -	- / -	- / -	
<i>Subtotal: Troop Seat Pin ECP1167</i>	- / -	- / 0.116	- / 0.171	- / -	- / -	- / -	
<b>Modification Item 26 of 26:</b> Upper and Lower Rod Ends (Formerly Pitch Link)							
B Kits							
Recurring							
Upper and Lower Rod Ends (Formerly Pitch Link):EQUIPMENT Group B (Active)	- / -	- / -	12 / 0.380	12 / 0.380	- / -	12 / 0.380	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 0.380	- / 0.380	- / -	- / 0.380	

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<b>Exhibit P-3a, Individual Modification: PB 2022 Air Force</b>					<b>Date: May 2021</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Capability Improvement			<b>Related RDT&amp;E PEs:</b> 0401318F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Upper and Lower Rod Ends (Formerly Pitch Link)</i>	- / -	- / -	- / 0.380	- / 0.380	- / -	- / 0.380
<i>Subtotal: Procurement, All Modification Items</i>	- / 93.542	- / 25.331	- / 80.007	- / 95.674	- / -	- / 95.674
<b>Support (All Modification Items)</b>						
GROUP A: TOTAL NONRECURRING	- / 70.930	- / 15.558	- / 11.517	- / 12.665	- / -	- / 12.665
PMA - Contractor Services	- / 31.990	- / 6.989	- / 2.000	- / 7.000	- / -	- / 7.000
Mod of Spares	- / 3.206	- / 0.250	- / 0.500	- / 2.000	- / -	- / 2.000
Data	- / 12.500	- / 3.550	- / 5.990	- / 4.000	- / -	- / 4.000
SIM/TRAINER	29 / 41.973	5 / 0.500	5 / 1.500	5 / 3.000	- / -	5 / 3.000
SUPPORT-EQUIP	- / 10.936	- / 7.956	- / 8.331	- / 10.999	- / -	- / 10.999
OTHER GOVT	- / 43.438	- / 0.500	- / 1.000	- / 5.700	- / -	- / 5.700
<i>Subtotal: Support</i>	29 / 214.973	5 / 35.303	5 / 30.838	5 / 45.364	- / -	5 / 45.364
<b>Installation</b>						
<i>Modification Item 1 of 26:</i> AC Bus Tie Impr/Manual Override Switches	51 / 0.641	- / -	- / -	- / -	- / -	- / -
<i>Modification Item 2 of 26:</i> Advanced Threat Warning System (JUON config)	22 / 3.542	5 / 0.734	12 / 1.764	15 / 5.196	- / -	15 / 5.196
<i>Modification Item 7 of 26:</i> Blk 20 Nacelle Mods/ Conversion Area Harness	- / -	- / -	1 / 0.645	8 / 5.224	- / -	8 / 5.224
<i>Modification Item 8 of 26:</i> Blk C ECP901	21 / 3.329	- / -	- / -	- / -	- / -	- / -
<i>Modification Item 10 of 26:</i> Cockpit Voice Recorder/K-VADR ECP964	16 / 0.286	11 / 0.198	12 / 0.144	13 / 0.156	- / -	13 / 0.156
<i>Modification Item 14 of 26:</i> Engine Thermo-Couple Wiring Harness ECP1075	21 / 0.449	11 / 0.256	11 / 0.267	7 / 0.174	- / -	7 / 0.174
<i>Modification Item 15 of 26:</i> Gen 5 Radio ECP866R1	20 / 0.268	10 / 0.128	9 / 0.118	- / -	- / -	- / -
<i>Modification Item 16 of 26:</i> HF Radio (BLOS) ECP1041	22 / 0.975	11 / 0.865	6 / 0.318	6 / 0.350	- / -	6 / 0.350
<i>Modification Item 20 of 26:</i> MCOI ECP873	5 / 0.329	- / -	12 / 3.296	12 / 3.745	- / -	12 / 3.745
<i>Modification Item 23 of 26:</i> Prop Rotor Hub Spring & Drive Link Impr	- / -	11 / 0.534	- / -	1 / 0.057	- / -	1 / 0.057
<i>Modification Item 24 of 26:</i> Rudder Reliability ECP1020	36 / 0.628	- / -	- / -	10 / 0.223	- / -	10 / 0.223
<i>Subtotal: Installation</i>	214 / 10.447	59 / 2.715	63 / 6.552	72 / 15.125	- / -	72 / 15.125
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>318.962</b>	<b>63.349</b>	<b>117.397</b>	<b>156.163</b>	<b>0.000</b>	<b>156.163</b>



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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 26:** AC Bus Tie Impr/Manual Override Switches

**Manufacturer Information**

Manufacturer Name: Bell-Boeing Manufacturer Location: Amarillo TX

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 6

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	51 / 0.641	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	51 / 0.641	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	51	-	-	-	-	-	-	-	-	-	-	-	-
Out	51	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 26:** Advanced Threat Warning System (JUON config)

**Manufacturer Information**

Manufacturer Name: Northrop Grumman	Manufacturer Location: Falls Church, VA		
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 12		
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	May 2020	May 2021	
Delivery Dates	May 2021	May 2022	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	22 / 3.542	5 / 0.734	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	12 / 1.764	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	15 / 5.196	- / -	15 / 5.196
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>22 / 3.542</b>	<b>5 / 0.734</b>	<b>12 / 1.764</b>	<b>15 / 5.196</b>	<b>- / -</b>	<b>15 / 5.196</b>

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	22	-	-	2	3	-	-	6	6	-	5	5	5
Out	22	-	-	-	2	3	-	-	6	6	-	5	5

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 3 of 26:** Advanced Threat Warning System (Series 2)

**Manufacturer Information**

Manufacturer Name: Northrup Grumman	Manufacturer Location: Falls Church, VA
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Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 12
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			May 2022
Delivery Dates			May 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

**Installation Schedule**

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

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 4 of 26:</b> Aluminum T/E Faring w/Gusset			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo, TX	
Administrative Leadtime ( <i>in Months</i> ): 3		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Jan 2022
Delivery Dates			Jan 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 54

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade		<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	
		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 5 of 26:</b> ARC 210 Upgrade 1990A			
<b>Manufacturer Information</b>			
Manufacturer Name: TBD		Manufacturer Location: TBD	
Administrative Leadtime (in Months): 7		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		May 2021	May 2022
Delivery Dates		May 2022	May 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 52	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 6 of 26:</b> Auto Dependent Surveillance-Broadcast ADSB/Out			
<b>Manufacturer Information</b>			
Manufacturer Name: iGATM		Manufacturer Location: Hanscom, MA	
Administrative Leadtime (in Months): 9		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Jul 2022	
Delivery Dates		Jul 2023	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 99	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5				<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods				<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Modification Item 7 of 26:</b> Blk 20 Nacelle Mods/Conversion Area Harness													
<b>Manufacturer Information</b>													
Manufacturer Name: Bell-Boeing							Manufacturer Location: Amarillo TX						
Administrative Leadtime (in Months): 5							Production Leadtime (in Months): 3						
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
Contract Dates		Mar 2020				Mar 2021				Mar 2022			
Delivery Dates		Jun 2020				Jun 2021				Jun 2022			
<b>Installation Information</b>													
<b>Method of Implementation:</b> Contract Field Team													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2020		- / -		- / -		1 / 0.645		- / -		- / -		- / -	
FY 2021		- / -		- / -		- / -		8 / 5.224		- / -		8 / 5.224	
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -	
Total		- / -		- / -		1 / 0.645		8 / 5.224		- / -		8 / 5.224	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	0	-	-	-	-	-	-	1	-	-	-	8	-
Out	0	-	-	-	-	-	-	1	-	-	-	8	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 8 of 26:** Blk C ECP901

**Manufacturer Information**

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	21 / 3.329	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	21 / 3.329	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	21	-	-	-	-	-	-	-	-	-	-	-	-
Out	21	-	-	-	-	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 9 of 26:</b> Coanda Valve Reliability Improvement			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 7		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			May 2022
Delivery Dates			May 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 52	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 10 of 26:** Cockpit Voice Recorder/K-VADR ECP964

**Manufacturer Information**

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX		
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2		
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Nov 2019	Nov 2020	Nov 2022
Delivery Dates	Jan 2020	Jan 2021	Jan 2023

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	16 / 0.286	11 / 0.198	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	12 / 0.144	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	13 / 0.156	- / -	13 / 0.156
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>16 / 0.286</b>	<b>11 / 0.198</b>	<b>12 / 0.144</b>	<b>13 / 0.156</b>	<b>- / -</b>	<b>13 / 0.156</b>

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	16	-	3	3	5	-	3	3	6	-	3	3	7
Out	11	5	-	3	3	5	-	3	3	6	-	3	3

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 11 of 26:</b> Data Transfer Unit Upgrade			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 4		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 51	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 12 of 26:</b> Drive Tube ECP929			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime ( <i>in Months</i> ): 2		Production Leadtime ( <i>in Months</i> ): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 10	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 13 of 26:</b> Electric Power System Upgrade (GCU)			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo, TX	
Administrative Leadtime ( <i>in Months</i> ): 2		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Dec 2021
Delivery Dates			Dec 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate			<b>Installation Quantity:</b> 52

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 14 of 26:** Engine Thermo-Couple Wiring Harness ECP1075

**Manufacturer Information**

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2019	Dec 2020	
Delivery Dates	Dec 2020	Dec 2021	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	21 / 0.449	11 / 0.256	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	11 / 0.267	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	7 / 0.174	- / -	7 / 0.174
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	21 / 0.449	11 / 0.256	11 / 0.267	7 / 0.174	- / -	7 / 0.174

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	21	3	3	3	2	3	3	3	2	3	3	1	-
Out	19	2	3	3	3	2	3	3	3	2	3	3	1

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 15 of 26:** Gen 5 Radio ECP866R1

**Manufacturer Information**

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12
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Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	20 / 0.268	10 / 0.128	9 / 0.118	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	20 / 0.268	10 / 0.128	9 / 0.118	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2020				FY 2021				FY 2022				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	20	3	3	3	1	3	3	3	-	-	-	-	-
Out	19	1	3	3	3	1	3	3	3	-	-	-	-

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 16 of 26:** HF Radio (BLOS) ECP1041

**Manufacturer Information**

Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 8		Production Leadtime (in Months): 11	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Jun 2020	Jun 2021	
Delivery Dates	May 2021	May 2022	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	22 / 0.975	11 / 0.865	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	6 / 0.318	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	6 / 0.350	- / -	6 / 0.350
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	22 / 0.975	11 / 0.865	6 / 0.318	6 / 0.350	- / -	6 / 0.350

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	22	-	-	6	5	-	-	3	3	-	-	6	-
Out	17	5	-	-	6	5	-	-	3	3	-	-	6



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 17 of 26:</b> Link 16			
<b>Manufacturer Information</b>			
Manufacturer Name: Data Link Solutions		Manufacturer Location: West Palm Beach, FL	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 6	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	Mar 2022
Delivery Dates		Sep 2021	Sep 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 38	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 18 of 26:</b> MAO VSLEDS			
<b>Manufacturer Information</b>			
Manufacturer Name: Collins Aerospace		Manufacturer Location: Vergennes, VT	
Administrative Leadtime ( <i>in Months</i> ): 6		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Apr 2022
Delivery Dates			Apr 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 45	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 19 of 26:</b> MCOI CAPRE			
<b>Manufacturer Information</b>			
Manufacturer Name: Prototype Integration Facility		Manufacturer Location: Huntsville AL	
Administrative Leadtime ( <i>in Months</i> ): 2		Production Leadtime ( <i>in Months</i> ): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2019		
Delivery Dates	Dec 2020		
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 52	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 20 of 26:** MCOI ECP873

**Manufacturer Information**

Manufacturer Name: Elbit Systems		Manufacturer Location: Fort Worth, TX	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Dec 2020	Dec 2020	
Delivery Dates	Dec 2021	Dec 2021	

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 0.329	- / -	12 / 3.296	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	12 / 3.745	- / -	12 / 3.745
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	5 / 0.329	- / -	12 / 3.296	12 / 3.745	- / -	12 / 3.745

**Installation Schedule**

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	5	-	-	-	-	3	3	3	3	3	3	3	3
Out	5	-	-	-	-	-	3	3	3	3	3	3	3

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 21 of 26:</b> Mode 5 APX-119 ECP935			
<b>Manufacturer Information</b>			
Manufacturer Name: Raytheon		Manufacturer Location: Aberdeen Proving Grounds MD	
Administrative Leadtime (in Months): 2		Production Leadtime (in Months): 10	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 36	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 22 of 26:</b> O2N2 Concentrator Sieve Bed Correction ECP1107			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo, TX	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 3	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Mar 2020	Mar 2021	Mar 2022
Delivery Dates	Jun 2020	Jun 2021	Jun 2022
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 52	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force							<b>Date:</b> May 2021							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5					<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods					<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>							
<b>Modification Item 23 of 26:</b> Prop Rotor Hub Spring & Drive Link Impr														
<b>Manufacturer Information</b>														
Manufacturer Name: Bell-Boeing							Manufacturer Location: Amarillo TX							
Administrative Leadtime (in Months): 2							Production Leadtime (in Months): 12							
<b>Dates</b>		<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
Contract Dates						Dec 2020				Dec 2021				
Delivery Dates						Dec 2021				Dec 2022				
<b>Installation Information</b>														
<b>Method of Implementation:</b> Contract Field Team														
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>		
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		
Prior Years		- / -		11 / 0.534		- / -		- / -		- / -		- / -		
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		
FY 2021		- / -		- / -		- / -		1 / 0.057		- / -		1 / 0.057		
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		
Total		- / -		11 / 0.534		- / -		1 / 0.057		- / -		1 / 0.057		
<b>Installation Schedule</b>														
	<b>PYS</b>	<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	
In	0	3	3	3	2	-	-	-	-	-	-	-	1	
Out	0	-	3	3	3	2	-	-	-	-	-	-	-	

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

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 8790 / Block 20 Upgrade
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 24 of 26:** Rudder Reliability ECP1020

**Manufacturer Information**

Manufacturer Name: Bell-Boeing	Manufacturer Location: Amarillo TX
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

**Installation Information**

**Method of Implementation:** Contract Field Team

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	36 / 0.628	- / -	- / -	10 / 0.223	- / -	10 / 0.223
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	36 / 0.628	- / -	- / -	10 / 0.223	- / -	10 / 0.223

**Installation Schedule**

PYS	In	Out	FY 2020				FY 2021				FY 2022				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	36		-	-	-	-	-	-	-	-	-	2	2	2	4
	36		-	-	-	-	-	-	-	-	-	-	2	2	2



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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 25 of 26:</b> Troop Seat Pin ECP1167			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 1		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Nov 2019	Nov 2021	
Delivery Dates	Nov 2020	Nov 2022	
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 52	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 26 of 26:</b> Upper and Lower Rod Ends (Formerly Pitch Link)			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 5		Production Leadtime (in Months): 12	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates		Mar 2021	Mar 2022
Delivery Dates		Mar 2022	Mar 2023
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 120	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force	<b>Date:</b> May 2021
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5	<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	<b>Modification Number / Title:</b> 1 / Low Cost Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	21.405	1.999	1.999	1.999	0.000	1.999
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	21.405	1.999	1.999	1.999	0.000	1.999
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>21.405</b>	<b>1.999</b>	<b>1.999</b>	<b>1.999</b>	<b>0.000</b>	<b>1.999</b>

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

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

**Description:**

This funds low cost modifications for CV-22 weapon system and training devices that are necessary to maintain operational safety, suitability, and effectiveness.

Milestone/Development Status

N/A

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force					<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5			<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods		<b>Modification Number / Title:</b> 1 / Low Cost Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> CV-22		<b>Modification Type:</b> Other			<b>Related RDT&amp;E PEs:</b> 0401318F	
Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>						
<i>Modification Item 1 of 1:</i> LCM						
A Kits						
Recurring						
LCM:INSTALL KITS Group A (Active)	0 / 21.405	- / 1.999	- / 1.999	- / 1.999	- / -	- / 1.999
<i>Subtotal: Recurring</i>	- / 21.405	- / 1.999	- / 1.999	- / 1.999	- / -	- / 1.999
<i>Subtotal: LCM</i>	- / 21.405	- / 1.999	- / 1.999	- / 1.999	- / -	- / 1.999
<i>Subtotal: Procurement, All Modification Items</i>	- / 21.405	- / 1.999	- / 1.999	- / 1.999	- / -	- / 1.999
<b>Installation</b>						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>21.405</b>	<b>1.999</b>	<b>1.999</b>	<b>1.999</b>	<b>0.000</b>	<b>1.999</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2022 Air Force		<b>Date:</b> May 2021	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 3010F / 05 / 5		<b>P-1 Line Item Number / Title:</b> V02200 / CV-22 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>	
<b>Modification Item 1 of 1:</b> LCM			
<b>Manufacturer Information</b>			
Manufacturer Name: Bell-Boeing		Manufacturer Location: Amarillo TX	
Administrative Leadtime (in Months): 0		Production Leadtime (in Months): 0	
<b>Dates</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			
Delivery Dates			
<b>Installation Information</b>			
<b>Method of Implementation (Organic):</b> Org/Intermediate		<b>Installation Quantity:</b> 0	

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