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

February 2020



Air Force

Justification Book Volume 1 of 1

Other Procurement, Air Force

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Air Force • Budget Estimates FY 2021 • Procurement

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Appropriation Language Fiscal Year (FY) 2021 President's Budget Other Procurement, Air Force

For procurement and modification of equipment (including ground guidance and electronic control equipment, and ground electronic and communication equipment), and supplies, materials, and spare parts therefor, not otherwise provided for; the purchase of passenger motor and expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon, prior to approval of title; reserve plant and Government, contractor-owned equipment layaway, classified programs, and overseas contingency operations, \$24,051,059,000 to remain available for obligation until September 30, 2023.

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

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

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

22 Jan 2020

Appropriation: Other Procurement, Air Force

Budget Activity -----	FY 2019 (Base + OCO) -----	FY 2020 Base Enacted -----	FY 2020 Emergency -----	FY 2020 OCO Enacted -----
02. Vehicular Equipment	482,779	231,775	4,102	139,665
03. Electronics and Telecommunications Equip	1,488,692	1,498,434	19,934	116,525
04. Other Base Maintenance and Support Equip	22,560,041	19,598,472	49,563	3,492,611
05. Spares and Repair Parts	93,965	81,340	4,375	
Total Other Procurement, Air Force	24,625,477	21,410,021	77,974	3,748,801

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

22 Jan 2020

Appropriation: Other Procurement, Air Force

Budget Activity -----	FY 2020 Total Enacted (Base+Emerg+ OCO) -----	FY 2021 Base -----	FY 2021 OCO for Base Requirements -----	FY 2021 OCO for Direct War and Enduring Costs -----
02. Vehicular Equipment	375,542	206,263		160,063
03. Electronics and Telecommunications Equip	1,634,893	1,282,572		92,313
04. Other Base Maintenance and Support Equip	23,140,646	22,189,374		98,963
05. Spares and Repair Parts	85,715	17,511		4,000
Total Other Procurement, Air Force	25,236,796	23,695,720		355,339

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

22 Jan 2020

Appropriation: Other Procurement, Air Force

Budget Activity -----	FY 2021 Total OCO -----	FY 2021 Total (Base + OCO) -----
02. Vehicular Equipment	160,063	366,326
03. Electronics and Telecommunications Equip	92,313	1,374,885
04. Other Base Maintenance and Support Equip	98,963	22,288,337
05. Spares and Repair Parts	4,000	21,511
Total Other Procurement, Air Force	355,339	24,051,059

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

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Vehicular Equipment											

Passenger Carrying Vehicles											
1	Passenger Carrying Vehicles	A		14,669		15,238		126		1,276	U
Cargo and Utility Vehicles											
2	Medium Tactical Vehicle	A		45,682		34,616					U
3	Cap Vehicles	A		1,700		1,700		994			U
4	Cargo and Utility Vehicles	A		63,636		23,133				9,702	U
Special Purpose Vehicles											
5	Joint Light Tactical Vehicle	A		46,177		32,027				40,999	U
6	Security And Tactical Vehicles	A		1,113		1,315					U
7	Special Purpose Vehicles	A		78,383		14,593		306		52,502	U
Fire Fighting Equipment											
8	Fire Fighting/Crash Rescue Vehicles	A		33,064		28,604				16,652	U
Materials Handling Equipment											
9	Materials Handling Vehicles	A		36,217		21,848		276		2,944	U
Base Maintenance Support											
10	Runway Snow Remov And Cleaning Equ	A		47,280		2,925				3,753	U
11	Base Maintenance Support Vehicles	A		114,603		55,776		2,400		11,837	U

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Vehicular Equipment											

Passenger Carrying Vehicles											
1	Passenger Carrying Vehicles	A		16,640		9,016				1,302	U
Cargo and Utility Vehicles											
2	Medium Tactical Vehicle	A		34,616		15,058				3,400	U
3	Cap Vehicles	A		2,694		1,059					U
4	Cargo and Utility Vehicles	A		32,835		38,920				12,475	U
Special Purpose Vehicles											
5	Joint Light Tactical Vehicle	A		73,026		30,544				26,150	U
6	Security And Tactical Vehicles	A		1,315		319					U
7	Special Purpose Vehicles	A		67,401		43,157				51,254	U
Fire Fighting Equipment											
8	Fire Fighting/Crash Rescue Vehicles	A		45,256		8,621				24,903	U
Materials Handling Equipment											
9	Materials Handling Vehicles	A		25,068		12,897				14,167	U
Base Maintenance Support											
10	Runway Snow Remov And Cleaning Equ	A		6,678		3,577				5,759	U
11	Base Maintenance Support Vehicles	A		70,013		43,095				20,653	U

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22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
Budget Activity 02: Vehicular Equipment							
Passenger Carrying Vehicles							
1	Passenger Carrying Vehicles	A		1,302	10,318		U
Cargo and Utility Vehicles							
2	Medium Tactical Vehicle	A		3,400	18,458		U
3	Cap Vehicles	A			1,059		U
4	Cargo and Utility Vehicles	A		12,475	51,395		U
Special Purpose Vehicles							
5	Joint Light Tactical Vehicle	A		26,150	56,694		U
6	Security And Tactical Vehicles	A			319		U
7	Special Purpose Vehicles	A		51,254	94,411		U
Fire Fighting Equipment							
8	Fire Fighting/Crash Rescue Vehicles	A		24,903	33,524		U
Materials Handling Equipment							
9	Materials Handling Vehicles	A		14,167	27,064		U
Base Maintenance Support							
10	Runway Snow Remov And Cleaning Equ	A		5,759	9,336		U
11	Base Maintenance Support Vehicles	A		20,653	63,748		U

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Cancelled Account Adjustments											
12	Cancelled Account Adjustments	A		255							U
				-----		-----		-----		-----	
Total Vehicular Equipment				482,779		231,775		4,102		139,665	
Budget Activity 03: Electronics and Telecommunications Equip -----											
Comm Security Equipment (Comsec)											
13	Comsec Equipment	A		104,410		81,461					U
Intelligence Programs											
14	International Intel Tech & Architectures	A		8,290		11,386					U
15	Intelligence Training Equipment	A		1,599		7,619					U
16	Intelligence Comm Equipment	A		21,720		32,048					U
Electronics Programs											
17	Air Traffic Control & Landing Sys	A		87,330		22,939					U
18	Battle Control System - Fixed			2,846		3,063					U
19	Theater Air Control Sys Improvemen	A		7,346							U
20	Weather Observation Forecast	A		52,113		31,447					U
21	Strategic Command And Control	A		32,836		5,090					U
22	Cheyenne Mountain Complex	A		10,503		10,145					U
23	Mission Planning Systems	A		12,092		14,508					U
24	Drug Interdiction Spt	A		233							U

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 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Cancelled Account Adjustments											
12	Cancelled Account Adjustments	A									U
Total Vehicular Equipment				375,542		206,263				160,063	
Budget Activity 03: Electronics and Telecommunications Equip											

Comm Security Equipment (Comsec)											
13	Comsec Equipment	A		81,461		54,864					U
Intelligence Programs											
14	International Intel Tech & Architectures	A		11,386		9,283					U
15	Intelligence Training Equipment	A		7,619		6,849					U
16	Intelligence Comm Equipment	A		32,048		33,471					U
Electronics Programs											
17	Air Traffic Control & Landing Sys	A		22,939		29,409					U
18	Battle Control System - Fixed			3,063		7,909					U
19	Theater Air Control Sys Improvemen	A				32,632					U
20	Weather Observation Forecast	A		31,447		33,021					U
21	Strategic Command And Control	A		5,090		31,353					U
22	Cheyenne Mountain Complex	A		10,145		10,314					U
23	Mission Planning Systems	A		14,508		15,132					U
24	Drug Interdiction Spt	A									U

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22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
	Cancelled Account Adjustments						
12	Cancelled Account Adjustments	A					U
	Total Vehicular Equipment			160,063		366,326	
Budget Activity 03: Electronics and Telecommunications Equip							

Comm Security Equipment (Comsec)							
13	Comsec Equipment	A				54,864	U
Intelligence Programs							
14	International Intel Tech & Architectures	A				9,283	U
15	Intelligence Training Equipment	A				6,849	U
16	Intelligence Comm Equipment	A				33,471	U
Electronics Programs							
17	Air Traffic Control & Landing Sys	A				29,409	U
18	Battle Control System - Fixed					7,909	U
19	Theater Air Control Sys Improvemen	A				32,632	U
20	Weather Observation Forecast	A				33,021	U
21	Strategic Command And Control	A				31,353	U
22	Cheyenne Mountain Complex	A				10,314	U
23	Mission Planning Systems	A				15,132	U
24	Drug Interdiction Spt	A					U

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 FY 2021 President's Budget
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 Total Obligational Authority
 (Dollars in Thousands)

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
25	Integrated Strat Plan & Analy Network (ISPAN)	A		7,337		8,601					U
	Spcl Comm-Electronics Projects										
26	General Information Technology	A		34,624		31,753				5,000	U
27	Af Global Command & Control Sys	A		5,320		2,756					U
28	Battlefield Airborne Control Node (BACN)	A				48,478					U
29	Mobility Command And Control	A		10,192		21,186					U
30	Air Force Physical Security System	A		101,660		178,361		12,000		106,919	U
31	Combat Training Ranges	A		227,598		282,893					U
32	Minimum Essential Emergency Comm N	A		140,875		132,648					U
33	Wide Area Surveillance (WAS)	A		75,532		42,118					U
34	C3 Countermeasures	A		30,001		25,036					U
35	GCSS-AF Fos	A		483		11,226					U
36	Defense Enterprise Accounting & Mgt Sys	A		962		1,905					U
37	Maintenance Repair & Overhaul Initiative	A		12,207		1,912					U
38	Theater Battle Mgt C2 System	A		5,191		6,337					U
39	Air & Space Operations Center (AOC)	A		38,589		33,243					U
40	Spectrum Relocation Fund	A		9,420							U
	Air Force Communications										
41	Base Information Transpt Infrast (BITI) Wired	A		17,271		62,280					U
42	AFNET	A		72,596		131,063					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 22, 2020 at 10:33:23

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

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
25	Integrated Strat Plan & Analy Network (ISPAN)	A		8,601		9,806					U
	Spcl Comm-Electronics Projects										
26	General Information Technology	A		36,753		39,887				5,100	U
27	Af Global Command & Control Sys	A		2,756		2,602					U
28	Battlefield Airborne Control Node (BACN)	A		48,478							U
29	Mobility Command And Control	A		21,186		10,541					U
30	Air Force Physical Security System	A		297,280		96,277				56,496	U
31	Combat Training Ranges	A		282,893		195,185					U
32	Minimum Essential Emergency Comm N	A		132,648		29,664					U
33	Wide Area Surveillance (WAS)	A		42,118		59,633					U
34	C3 Countermeasures	A		25,036		105,584					U
35	GCSS-AF Fos	A		11,226							U
36	Defense Enterprise Accounting & Mgt Sys	A		1,905		899					U
37	Maintenance Repair & Overhaul Initiative	A		1,912							U
38	Theater Battle Mgt C2 System	A		6,337		3,392					U
39	Air & Space Operations Center (AOC)	A		33,243		24,983					U
40	Spectrum Relocation Fund	A									U
	Air Force Communications										
41	Base Information Transpt Infrast (BITI) Wired	A		62,280		19,147					U
42	AFNET	A		131,063		84,515					U

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

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
25	Integrated Strat Plan & Analy Network (ISPAN)	A			9,806		U
	Spcl Comm-Electronics Projects						
26	General Information Technology	A		5,100	44,987		U
27	Af Global Command & Control Sys	A			2,602		U
28	Battlefield Airborne Control Node (BACN)	A					U
29	Mobility Command And Control	A			10,541		U
30	Air Force Physical Security System	A		56,496	152,773		U
31	Combat Training Ranges	A			195,185		U
32	Minimum Essential Emergency Comm N	A			29,664		U
33	Wide Area Surveillance (WAS)	A			59,633		U
34	C3 Countermeasures	A			105,584		U
35	GCSS-AF Fos	A					U
36	Defense Enterprise Accounting & Mgt Sys	A			899		U
37	Maintenance Repair & Overhaul Initiative	A					U
38	Theater Battle Mgt C2 System	A			3,392		U
39	Air & Space Operations Center (AOC)	A			24,983		U
40	Spectrum Relocation Fund	A					U
	Air Force Communications						
41	Base Information Transpt Infrast (BITI) Wired	A			19,147		U
42	AFNET	A			84,515		U

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

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
43	Joint Communications Support Element (JCSE)	A		3,145		6,505					U
44	USCENTCOM	A		8,194		20,190					U
45	USSTRATCOM	A				11,244					U
Organization and Base											
46	Tactical C-E Equipment	A		166,249		143,757				306	U
47	Radio Equipment	A		11,961		15,402					U
48	CCTV/Audiovisual Equipment	A		3,005		2,211					U
49	Base Comm Infrastructure	A		153,476		43,123		7,934		4,300	U
Modifications											
50	Comm Elect Mods	A		11,486		14,500					U
Total Electronics and Telecommunications Equip				1,488,692		1,498,434		19,934		116,525	
Budget Activity 04: Other Base Maintenance and Support Equip											
Personal Safety & Rescue Equip											
51	Personal Safety and Rescue Equipment	A		73,954		46,934				22,200	U
Depot Plant+Mtrls Handling Eq											
52	Power Conditioning Equipment	A				11,000					U
53	Mechanized Material Handling Equip	A		85,778		11,901					U
Base Support Equipment											
54	Base Procured Equipment	A		46,162		23,963		24,500			U

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Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
43	Joint Communications Support Element (JCSE)	A		6,505		6,185					U
44	USCENTCOM	A		20,190		19,649					U
45	USSTRATCOM	A		11,244		4,337					U
Organization and Base											
46	Tactical C-E Equipment	A		144,063		137,033					U
47	Radio Equipment	A		15,402		15,264					U
48	CCTV/Audiovisual Equipment	A		2,211							U
49	Base Comm Infrastructure	A		55,357		132,281				30,717	U
Modifications											
50	Comm Elect Mods	A		14,500		21,471					U
Total Electronics and Telecommunications Equip				1,634,893		1,282,572				92,313	
Budget Activity 04: Other Base Maintenance and Support Equip											

Personal Safety & Rescue Equip											
51	Personal Safety and Rescue Equipment	A		69,134		49,578					U
Depot Plant+Mtrls Handling Eq											
52	Power Conditioning Equipment	A		11,000		11,454					U
53	Mechanized Material Handling Equip	A		11,901		12,110					U
Base Support Equipment											
54	Base Procured Equipment	A		48,463		21,142					U

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Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
43	Joint Communications Support Element (JCSE)	A			6,185		U
44	USCENTCOM	A			19,649		U
45	USSTRATCOM	A			4,337		U
Organization and Base							
46	Tactical C-E Equipment	A			137,033		U
47	Radio Equipment	A			15,264		U
48	CCTV/Audiovisual Equipment	A					U
49	Base Comm Infrastructure	A		30,717	162,998		U
Modifications							
50	Comm Elect Mods	A			21,471		U
Total Electronics and Telecommunications Equip				92,313	1,374,885		
Budget Activity 04: Other Base Maintenance and Support Equip							

Personal Safety & Rescue Equip							
51	Personal Safety and Rescue Equipment	A			49,578		U
Depot Plant+Mtrls Handling Eq							
52	Power Conditioning Equipment	A			11,454		U
53	Mechanized Material Handling Equip	A			12,110		U
Base Support Equipment							
54	Base Procured Equipment	A			21,142		U

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Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
55	Engineering and EOD Equipment	A		136,135		34,124					U
56	Mobility Equipment	A		87,735		26,439			26,535		U
57	Fuels Support Equipment (FSE)	A				24,255			4,040		U
58	Base Maintenance and Support Equipment	A		52,060		38,986			20,067		U
Special Support Projects											
60	DARP RC135	A		26,262		26,716		25,063			U
61	DCGS-AF	A		397,987		116,055					U
63	Special Update Program	A		910,551		917,148					U
999	Classified Programs			20,743,417		18,320,951			3,419,769		U
Total Other Base Maintenance and Support Equip				22,560,041		19,598,472		49,563	3,492,611		
Budget Activity 05: Spares and Repair Parts											

Spares and Repair Parts											
64	Spares and Repair Parts (Cyber)	A									U
65	Spares And Repair Parts	A		93,965		81,340		4,375			U
Total Spares and Repair Parts				93,965		81,340		4,375			
Total Other Procurement, Air Force				24,625,477		21,410,021		77,974	3,748,801		

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22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
55	Engineering and EOD Equipment	A		34,124		7,700			13,172		U
56	Mobility Equipment	A		52,974		18,266			33,694		U
57	Fuels Support Equipment (FSE)	A		28,295		9,601			1,777		U
58	Base Maintenance and Support Equipment	A		59,053		42,078			31,620		U
Special Support Projects											
60	DARP RC135	A		51,779		27,164					U
61	DCGS-AF	A		116,055		121,528			18,700		U
63	Special Update Program	A		917,148		782,641					U
999	Classified Programs			21,740,720		21,086,112					U
Total Other Base Maintenance and Support Equip				23,140,646		22,189,374			98,963		
Budget Activity 05: Spares and Repair Parts											

Spares and Repair Parts											
64	Spares and Repair Parts (Cyber)	A				1,664					U
65	Spares And Repair Parts	A		85,715		15,847			4,000		U
Total Spares and Repair Parts				85,715		17,511			4,000		
Total Other Procurement, Air Force				25,236,796		23,695,720			355,339		

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

22 Jan 2020

Appropriation: 3080F Other Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
55	Engineering and EOD Equipment	A		13,172		20,872	U
56	Mobility Equipment	A		33,694		51,960	U
57	Fuels Support Equipment (FSE)	A		1,777		11,378	U
58	Base Maintenance and Support Equipment	A		31,620		73,698	U
Special Support Projects							
60	DARP RC135	A				27,164	U
61	DCGS-AF	A		18,700		140,228	U
63	Special Update Program	A				782,641	U
999	Classified Programs					21,086,112	U
Total Other Base Maintenance and Support Equip				98,963		22,288,337	
Budget Activity 05: Spares and Repair Parts							

Spares and Repair Parts							
64	Spares and Repair Parts (Cyber)	A				1,664	U
65	Spares And Repair Parts	A		4,000		19,847	U
Total Spares and Repair Parts				4,000		21,511	
Total Other Procurement, Air Force				355,339		24,051,059	

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Appropriation 3080F: Other Procurement, Air Force

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2	02	02	822230	Medium Tactical Vehicle.....	Volume 1 - 7
3	02	02	822910	Cap Vehicles.....	Volume 1 - 13
4	02	02	822990	Cargo and Utility Vehicles.....	Volume 1 - 15
5	02	03	823210	Joint Light Tactical Vehicle.....	Volume 1 - 27
6	02	03	823230	Security And Tactical Vehicles.....	Volume 1 - 33
7	02	03	823990	Special Purpose Vehicles.....	Volume 1 - 35
8	02	04	824010	Fire Fighting/Crash Rescue Vehicles.....	Volume 1 - 45
9	02	05	825990	Materials Handling Vehicles.....	Volume 1 - 51
10	02	06	826210	Runway Snow Remov And Cleaning Equ.....	Volume 1 - 59
11	02	06	826990	Base Maintenance Support Vehicles.....	Volume 1 - 65

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14	03	02	832050	International Intel Tech & Architectures.....	Volume 1 - 91
15	03	02	832060	Intelligence Training Equipment.....	Volume 1 - 97
16	03	02	832070	Intelligence Comm Equipment.....	Volume 1 - 101
17	03	03	833010	Air Traffic Control & Landing Sys.....	Volume 1 - 117
18	03	03	833030	Battle Control System - Fixed.....	Volume 1 - 129
19	03	03	833040	Theater Air Control Sys Improvemen.....	Volume 1 - 131
20	03	03	833070	Weather Observation Forecast.....	Volume 1 - 141
21	03	03	833140	Strategic Command And Control.....	Volume 1 - 155
22	03	03	833160	Cheyenne Mountain Complex.....	Volume 1 - 167
23	03	03	833170	Mission Planning Systems.....	Volume 1 - 177
24	03	03	833440	Drug Interdiction Spt.....	Volume 1 - 183
25	03	03	833560	Integrated Strat Plan & Analy Network (ISPAN).....	Volume 1 - 185
26	03	04	834010	General Information Technology.....	Volume 1 - 189
27	03	04	834040	Af Global Command & Control Sys.....	Volume 1 - 221
28	03	04	834050	Battlefield Airborne Control Node (BACN).....	Volume 1 - 223

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30	03	04	834130	Air Force Physical Security System.....	Volume 1 - 229
31	03	04	834190	Combat Training Ranges.....	Volume 1 - 243
32	03	04	834210	Minimum Essential Emergency Comm N.....	Volume 1 - 257
33	03	04	834240	Wide Area Surveillance (WAS).....	Volume 1 - 261
34	03	04	834320	C3 Countermeasures.....	Volume 1 - 271
35	03	04	834430	GCSS-AF Fos.....	Volume 1 - 285
36	03	04	834470	Defense Enterprise Accounting & Mgt Sys.....	Volume 1 - 287
37	03	04	834480	Maintenance Repair & Overhaul Initiative.....	Volume 1 - 289
38	03	04	834520	Theater Battle Mgt C2 System.....	Volume 1 - 291
39	03	04	834530	Air & Space Operations Center (AOC).....	Volume 1 - 293
40	03	04	834880	Spectrum Relocation Fund.....	Volume 1 - 299
41	03	05	835060	Base Information Transpt Infrast (BITI) Wired.....	Volume 1 - 301
42	03	05	835080	AFNET.....	Volume 1 - 311
43	03	05	835110	Joint Communications Support Element (JCSE).....	Volume 1 - 321
44	03	05	835140	USCENTCOM.....	Volume 1 - 325
45	03	05	835160	USSTRATCOM.....	Volume 1 - 329
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55	04	05	845100	Engineering and EOD Equipment.....	Volume 1 - 411
56	04	05	845420	Mobility Equipment.....	Volume 1 - 415
57	04	05	845550	Fuels Support Equipment (FSE).....	Volume 1 - 419
58	04	05	845990	Base Maintenance and Support Equipment.....	Volume 1 - 423
60	04	06	846070	DARP RC135.....	Volume 1 - 429

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63	04	06	846510	Special Update Program.....	Volume 1 - 455

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64	05	01	861350	Spares and Repair Parts (Cyber).....	Volume 1 - 457
65	05	01	861900	Spares and Repair Parts.....	Volume 1 - 459

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Af Global Command & Control Sys	834040	27	03	04.....	Volume 1 - 221
Air & Space Operations Center (AOC)	834530	39	03	04.....	Volume 1 - 293
Air Force Physical Security System	834130	30	03	04.....	Volume 1 - 229
Air Traffic Control & Landing Sys	833010	17	03	03.....	Volume 1 - 117
Base Comm Infrastructure	837300	49	03	07.....	Volume 1 - 355
Base Information Transpt Infrast (BITI) Wired	835060	41	03	05.....	Volume 1 - 301
Base Maintenance Support Vehicles	826990	11	02	06.....	Volume 1 - 65
Base Maintenance and Support Equipment	845990	58	04	05.....	Volume 1 - 423
Base Procured Equipment	845010	54	04	05.....	Volume 1 - 407
Battle Control System - Fixed	833030	18	03	03.....	Volume 1 - 129
Battlefield Airborne Control Node (BACN)	834050	28	03	04.....	Volume 1 - 223
C3 Countermeasures	834320	34	03	04.....	Volume 1 - 271
CCTV/Audiovisual Equipment	837240	48	03	07.....	Volume 1 - 353
Cap Vehicles	822910	3	02	02.....	Volume 1 - 13
Cargo and Utility Vehicles	822990	4	02	02.....	Volume 1 - 15
Cheyenne Mountain Complex	833160	22	03	03.....	Volume 1 - 167

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Comm Elect Mods	838010	50	03	08.....	Volume 1 - 379
Comsec Equipment	831010	13	03	01.....	Volume 1 - 77
DARP RC135	846070	60	04	06.....	Volume 1 - 429
DCGS-AF	846080	61	04	06.....	Volume 1 - 435
Defense Enterprise Accounting & Mgt Sys	834470	36	03	04.....	Volume 1 - 287
Drug Interdiction Spt	833440	24	03	03.....	Volume 1 - 183
Engineering and EOD Equipment	845100	55	04	05.....	Volume 1 - 411
Fire Fighting/Crash Rescue Vehicles	824010	8	02	04.....	Volume 1 - 45
Fuels Support Equipment (FSE)	845550	57	04	05.....	Volume 1 - 419
GCSS-AF Fos	834430	35	03	04.....	Volume 1 - 285
General Information Technology	834010	26	03	04.....	Volume 1 - 189
Integrated Strat Plan & Analy Network (ISPAN)	833560	25	03	03.....	Volume 1 - 185
Intelligence Comm Equipment	832070	16	03	02.....	Volume 1 - 101
Intelligence Training Equipment	832060	15	03	02.....	Volume 1 - 97
International Intel Tech & Architectures	832050	14	03	02.....	Volume 1 - 91
Joint Communications Support Element (JCSE)	835110	43	03	05.....	Volume 1 - 321
Joint Light Tactical Vehicle	823210	5	02	03.....	Volume 1 - 27
Maintenance Repair & Overhaul Initiative	834480	37	03	04.....	Volume 1 - 289
Materials Handling Vehicles	825990	9	02	05.....	Volume 1 - 51

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Minimum Essential Emergency Comm N	834210	32	03	04.....	Volume 1 - 257
Mission Planning Systems	833170	23	03	03.....	Volume 1 - 177
Mobility Command And Control	834070	29	03	04.....	Volume 1 - 225
Mobility Equipment	845420	56	04	05.....	Volume 1 - 415
Passenger Carrying Vehicles	821800	1	02	01.....	Volume 1 - 1
Personal Safety and Rescue Equipment	842990	51	04	02.....	Volume 1 - 391
Power Conditioning Equipment	843040	52	04	03.....	Volume 1 - 399
Radio Equipment	837190	47	03	07.....	Volume 1 - 349
Runway Snow Remov And Cleaning Equ	826210	10	02	06.....	Volume 1 - 59
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Spares and Repair Parts	861900	65	05	01.....	Volume 1 - 459
Spares and Repair Parts (Cyber)	861350	64	05	01.....	Volume 1 - 457
Special Purpose Vehicles	823990	7	02	03.....	Volume 1 - 35
Special Update Program	846510	63	04	06.....	Volume 1 - 455
Spectrum Relocation Fund	834880	40	03	04.....	Volume 1 - 299
Strategic Command And Control	833140	21	03	03.....	Volume 1 - 155
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USSTRATCOM	835160	45	03	05.....	Volume 1 - 329
Weather Observation Forecast	833070	20	03	03.....	Volume 1 - 141
Wide Area Surveillance (WAS)	834240	33	03	04.....	Volume 1 - 261

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

Lookup Matrix by Model

Model:	CRCPhase1		
Modification P-40a Aggregated Items Title:	Theater Air Control System Improvement		
Item Number	Item Title		Applies to Multiple Models
Uncategorized			
CRC01	CRC Phase 1		No

Model:	OMMOD		
Modification P-40a Aggregated Items Title:	Theater Air Control System Improvement		
Item Number	Item Title		Applies to Multiple Models
Uncategorized			
TYQ23A	AN/TYQ23A OM MOD		No

Model:	RRSVSRadioModernization		
P-3a Individual Modifications			
Modification Number	Modification Title		Applies to Multiple Models
1	CRC RRSVS RADIO MOD UPGRADE		No

Model:	NWM		
Modification P-40a Aggregated Items Title:	WOF		
Item Number	Item Title		Applies to Multiple Models
Uncategorized			
WOF2	Numerical Weather Modeling (NWM)		No

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

Model:	CheyenneMountainComplex		
Modification P-40a Aggregated Items Title:	COCOM Mobile Command and Control Centers (MCCCs)		
Item Number	Item Title	Applies to Multiple Models	
Uncategorized			
002	Mobile Consolidated Command Center Modification	No	
003	Mobile Consolidated Command Center Upgrade Block 01	No	
005	Mobile Consolidated Command Center Upgrade Block 03	No	
Modification P-40a Aggregated Items Title:	NMC - TW/AA System		
Item Number	Item Title	Applies to Multiple Models	
Uncategorized			
001	Core C2 Enterprise Network Infrastructure and Mission Equipment	No	
P-3a Individual Modifications			
Modification Number	Modification Title	Applies to Multiple Models	
006	MCCC Upgrade Block 04	No	

Model:	CheyenneMounatinComplex		
Modification P-40a Aggregated Items Title:	COCOM Mobile Command and Control Centers (MCCCs)		
Item Number	Item Title	Applies to Multiple Models	
Uncategorized			
004	Mobile Consolidated Command Center Upgrade Block 02	No	

Model:	NORADCheyenneMountainComplex		
Modification P-40a Aggregated Items Title:	NMC - TW/AA System		
Item Number	Item Title	Applies to Multiple Models	
Uncategorized			

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

Model:	NORADCheyenneMountainComplex	
Modification P-40a Aggregated Items Title:	NCMC - TW/AA System	
Item Number	Item Title	Applies to Multiple Models
NCMCB1	NORAD Cheyenne Mountain Complex Block 01	No
NCMCB2	NORAD Cheyenne Mountain Complex Block 02	No
NCMCB3	NORAD Cheyenne Mountain Complex Block 03	No
NCMCB4	NORAD Cheyenne Mountain Complex Block 04	No

Model:	Bases	
Modification P-40a Aggregated Items Title:	Base Physical Security Systems	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
AFPSS4	Base Physical Security Systems	No
CENTCOM	C-sUAS CENTCOM JUON	No
CSUAS1	C-sUAS STRATCOM JEON	No
CSUAS2	C-sUAS	No
EUJUON	C-sUAS EUCOM JUON	No
IBDSS-1	IBDSS-1	No
IBDSS-3	IBDSS-3	No
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
1	IBDSS-2	No

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

Model:	CombatTrainingRange	
Modification P-40a Aggregated Items Title:	CEAR MODS	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
CTR02	CEAR UMTE Mod	No

Model:	JointThreatEmitter	
Modification P-40a Aggregated Items Title:	JTE	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
CTR01	Combat Training Ranges Joint Threat Emitter	No

Model:	BITI	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
1	BITI Mod/Recaps	No
2	BITI Mod/Recaps BITI Modification 2	No

Model:	ACD	
Modification P-40a Aggregated Items Title:	AF Defensive Cyberspace Operations	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
Mod 1 0208088F	ACD WS 0208088F	No

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

Model:	AFINC-CSCS-WS	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
1	AFINC/CSCS WS 0303089	No

Model:	JIE	
Modification P-40a Aggregated Items Title:	Joint Regional Security Stacks (JRSS)	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
JIE-1	JIE-Mod	No

Model:	GRN-29	
Modification P-40a Aggregated Items Title:	Air Traffic Control, Approach, and Landing System (ATCALs)	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
AN/GRN-29 Instrument Landing System	ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F)	No

Model:	TRN-48	
Modification P-40a Aggregated Items Title:	Air Traffic Control, Approach, and Landing System (ATCALs)	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
ATCALs	Deployable TACAN Retrofit/Refurbishment	No

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Model:	ATCALS	
Modification P-40a Aggregated Items Title:	Air Traffic Control, Approach, and Landing System (ATCALS)	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
P-3A Low Cost Mods	ATCALS Low Cost Mods (PE 0305114F)	No

Model:	NASMod-1	
Modification P-40a Aggregated Items Title:	National Airspace System (NAS) Plan	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
NAS Mod 1	NAS Gen4 MOD	No

Model:	NAS	
Modification P-40a Aggregated Items Title:	National Airspace System (NAS) Plan	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
NAS Mod 2	NAS Low Cost Mods	No
NAS Mod 3	DASR Site Control Data Interface (SCDI)	No
NAS Mod 4	National Airspace System (NAS) Mod 4	No

Model:	na	
Modification P-40a Aggregated Items Title:	Tactical Data Networks Enterprise	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
TDNE	Tactical Data Networks Enterprise	No

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

Model:	RC-135	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
1	DARP Modification	No

Model:	0305208F	
Modification P-40a Aggregated Items Title:	Distributed Common Ground/Surface Systems	
Item Number	Item Title	Applies to Multiple Models
Uncategorized		
DCGS13	NASIC	No
DCGS5	Sensor Integration	No
DCGS8	DCGS Reference Imagery Transition (DRT)	No
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
2	Signals Intelligence (SIGINT)	No
3	Multi-Intelligence (Multi-INT)	No
4	Network Infrastructure Transformation	No

Model:	DCGS	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
1	GEOINT Transformation (GEOINT)	No

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

Funding (\$ M)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Exhibit P-40a										
CRC Phase 1	18.783	3.405	0.000	0.000	0.000	0.000	0.000	-	-	-
AN/TYQ23A OM MOD	28.323	3.941	-	-	-	-	-	-	-	-
Numerical Weather Modeling (NWM)	18.342	9.022	1.459	2.864	-	2.864	1.146	2.264	0.537	-
Mobile Consolidated Command Center Modification	-	-	-	-	-	-	8.150	8.497	8.649	8.808
Mobile Consolidated Command Center Upgrade Block 01	7.845	0.440	-	-	-	-	-	-	-	-
Mobile Consolidated Command Center Upgrade Block 02	-	9.563	0.200	-	-	-	-	-	-	-
Mobile Consolidated Command Center Upgrade Block 03	-	-	7.866	0.200	-	0.200	-	-	-	-
Core C2 Enterprise Network Infrastructure and Mission Equipment	-	-	-	0.000	-	0.000	2.152	2.190	2.230	2.271
NORAD Cheyenne Mountain Complex Block 01	2.019	0.000	-	-	-	-	-	-	-	-
NORAD Cheyenne Mountain Complex Block 02	-	0.500	-	-	-	-	-	-	-	-
NORAD Cheyenne Mountain Complex Block 03	-	0.000	2.079	0.205	-	0.205	-	-	-	-
NORAD Cheyenne Mountain Complex Block 04	-	-	-	1.908	-	1.908	-	-	-	-
Base Physical Security Systems	114.215	0.238	0.608	-	-	-	-	-	-	-
C-sUAS CENTCOM JUON	157.144	0.000	-	-	-	-	-	-	-	-
C-sUAS STRATCOM JEON	195.918	0.000	-	-	-	-	-	-	-	-
C-sUAS	112.500	11.572	98.000	-	-	-	-	-	-	-
C-sUAS EUCOM JUON	61.260	-	-	-	-	-	-	-	-	-
IBDSS-1	84.469	43.530	1.173	-	-	-	-	-	-	-
IBDSS-3	-	-	-	-	-	-	-	46.629	52.524	60.602
CEAR UMTE Mod	0.300	7.636	1.000	-	-	-	-	-	-	-

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

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Combat Training Ranges Joint Threat Emitter	9.031	1.707	1.735	0.000	-	0.000	-	-	-	-
ACD WS 0208088F	-	30.044	16.883	-	-	-	-	-	-	-
JIE-Mod	0.000	0.000	-	0.000	-	0.000	9.579	9.747	9.921	7.132
ATCAL5 AN/GRN-29 Instrument Landing System (PE 0305114F)	44.594	0.000	-	-	-	-	-	-	-	-
Deployable TACAN Retrofit/Refurbishment	3.800	-	-	-	-	-	-	-	-	-
ATCAL5 Low Cost Mods (PE 0305114F)	6.037	1.850	1.858	1.882	-	1.882	1.910	1.945	1.981	2.017
NAS Gen4 MOD	11.722	9.636	-	-	-	-	-	-	-	-
NAS Low Cost Mods	-	-	1.854	1.892	-	1.892	1.870	1.902	1.937	1.973
DASR Site Control Data Interface (SCDI)	-	-	3.840	-	-	-	-	-	-	0.637
National Airspace System (NAS) Mod 4	-	-	-	1.776	-	1.776	0.604	0.615	0.626	-
Tactical Data Networks Enterprise	-	-	6.948	-	-	-	7.940	-	-	-
NASIC	1.800	0.400	-	0.000	-	0.000	0.000	0.000	-	-
Sensor Integration	17.687	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-
DCGS Reference Imagery Transition (DRT)	0.146	8.078	-	0.000	-	0.000	0.000	0.000	0.000	-
Exhibit P-3a										
CRC RRSVS RADIO MOD UPGRADE	-	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679
MCCC Upgrade Block 04	-	0.000	0.000	8.001	0.000	8.001	0.200	0.000	0.000	0.000
IBDSS-2	-	-	85.903	39.601	0.000	39.601	50.711	4.966	0.000	-
BITI Mod/Recaps	14.810	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000
BITI Mod/Recaps BITI Modification 2	-	-	-	-	-	-	-	51.942	111.901	113.951
AFINC/CSCS WS 0303089	-	42.552	109.217	84.515	0.000	84.515	69.346	74.284	71.840	43.286
DARP Modification	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172

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

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
GEOINT Transformation (GEOINT)	26.517	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619
Signals Intelligence (SIGINT)	27.544	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635
Multi-Intelligence (Multi-INT)	36.163	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663
Network Infrastructure Transformation	133.284	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361
Totals (Total Obligation Authority)										
Total Obligation Authority	1,210.198	578.436	548.819	301.769	18.700	320.469	437.497	384.062	432.490	620.806

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

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

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CONTRACT METHOD / TYPE ACRONYMS

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

CONTRACTED BY ACRONYMS

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

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

IDENTIFICATION CODES

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles	P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles
--	--

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	14.669	16.640	9.016	1.302	10.318	46.694	6.837	7.666	7.799	-	110.623
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	14.669	16.640	9.016	1.302	10.318	46.694	6.837	7.666	7.799	-	110.623
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	14.669	16.640	9.016	1.302	10.318	46.694	6.837	7.666	7.799	-	110.623

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

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

Description:

FY19 funding totals include \$9.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$1.276M appropriated for Overseas Contingency Operations.

Passenger Carrying Vehicles includes the procurement of sedans, law enforcement sedans, ambulances and buses. These vehicles are general in nature, but they fulfill unique and distinct needs commensurate with their design.

Sedans are available in compact, mid-size, and large, and are used to support a variety of functions and missions at all levels of the Air Force. A portion of these sedans is dedicated for use by the Office of Special Investigations (OSI) and a portion is procured as chase cars used to support U-2 aircraft operations.

Law Enforcement Sedans (LE Sedans) come equipped with a heavy-duty component package for law enforcement and security missions. Security forces personnel use this type of vehicle for emergency response, traffic control, patrol duties, and base security operations.

Ambulances include both bus ambulances and modular ambulances that are used for medical evacuation operations. The bus ambulance is a 44 passenger bus converted to accommodate massive patient transport for medical emergency situations and humanitarian/disaster relief operations. The modular models are standard commercial ambulances that are available in 4x2 and 4x4 configurations. They are used for the movement of patients under field conditions, aircraft crash rescue operations, and routine transportation of patients to and from medical facilities.

Buses include a variety of commercial vehicles that support a broad range of mass transit requirements. Bus sizes range from the 16 passenger shuttle bus to the 52 passenger bus. These vehicles support Air Education and Training Command (AETC) training units, Air Force band organizations, protocol offices, and several other missions.

This requirement (or modification) 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles		P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Funding for this exhibit contained in PEs: 0202834F, 0207597F, 0305202F, 0507831F, 0502831F, 0702831F, 0305155F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	147	198	59	12	71	-	-	-	-
	Total Obligation Authority	14.384	16.379	8.768	1.302	10.070	-	-	-	-
AFNG	Quantity	2	2	4	0	4	-	-	-	-
	Total Obligation Authority	0.179	0.203	0.188	0.000	0.188	-	-	-	-
AFR	Quantity	1	2	2	0	2	-	-	-	-
	Total Obligation Authority	0.106	0.058	0.060	0.000	0.060	-	-	-	-
Total:	Quantity	150	202	65	12	77	-	-	-	-
Secondary Distribution	Total Obligation Authority	14.669	16.640	9.016	1.302	10.318	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 1: Passenger Carrying Vehicles	P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-40a	Passenger Carrying Vehicles				- / -	- / 14.669	- / 16.640	- / 9.016	- / 1.302	- / 10.318
P-40	Total Gross/Weapon System Cost				- / -	- / 14.669	- / 16.640	- / 9.016	- / 1.302	- / 10.318

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$9.016M will procure, but not be limited to, 65 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$1.302M will procure, but not be limited to, 12 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1					P-1 Line Item Number / Title: 821800 / Passenger Carrying Vehicles										Aggregated Items Title: Passenger Carrying Vehicles						
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Uncategorized																					
BUS, 23 PAX SURREY (2310-01-382-3919)	A		-	-	-	0.109	7	0.761	0.081	3	0.243	0.087	3	0.261	-	-	-	0.087	3	0.261	
<i>Secondary Distribution</i>																					
AF			-	-	-		7	0.761		3	0.243		3	0.261		-	-		3	0.261	
PEC: 0305155F - THEATER NUCLEAR WEAPON STORAGE & SECURITY SYSTEM (UNKNOWN REQUIREMENTS)	A		-	-	-	-	-	-	-	-	-	-	-	5.494	-	-	-	-	-	5.494	
<i>Secondary Distribution</i>																					
AF			-	-	-	-	-	-	-	-	-	-	-	5.494	-	-	-	-	-	5.494	
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	-	0.006	-	-	0.016	-	-	0.005	-	-	-	-	-	0.005	
<i>Secondary Distribution</i>																					
AF			-	-	-	-	-	0.006	-	-	0.016	-	-	0.005	-	-	-	-	-	0.005	
SDN MIDSIZE 5PAX CL III (2310-01-074-7736)	A		-	-	-	0.106	1	0.106	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																					
AFR			-	-	-		1	0.106		-	-		-	-		-	-		-	-	
SUB COMPACT SEDAN (2310-01-434-2235)	A		-	-	-	0.026	19	0.499	0.019	33	0.630	0.019	10	0.191	-	-	-	0.019	10	0.191	
<i>Secondary Distribution</i>																					
AF			-	-	-		19	0.499		32	0.611		9	0.172		-	-		9	0.172	
AFNG			-	-	-		-	-		-	-		1	0.019		-	-		1	0.019	
AFR			-	-	-		-	-		1	0.019		-	-		-	-		-	-	
HYBRID SEDAN (2310-01-575-5380)	A		-	-	-	0.027	15	0.412	0.020	18	0.360	0.021	7	0.144	-	-	-	0.021	7	0.144	
<i>Secondary Distribution</i>																					
AF			-	-	-		15	0.412		18	0.360		7	0.144		-	-		7	0.144	
SDN DOD INVESTIGATION UPFIT (replaces LE Sedan 6668)	A		-	-	-	0.037	5	0.185	0.039	15	0.586	0.034	10	0.340	0.034	1	0.034	0.034	0.034	11	0.374
<i>Secondary Distribution</i>																					
AF			-	-	-		5	0.185		14	0.547		8	0.272		1	0.034		9	0.306	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1 **P-1 Line Item Number / Title:** 821800 / Passenger Carrying Vehicles **Aggregated Items Title:** Passenger Carrying Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFNG				-	-		-	-		-	-		1	0.034		-	-		1	0.034
AFR				-	-		-	-		1	0.039		1	0.034		-	-		1	0.034
HI PERFORMANCE SEDAN (2310-01-571-3859)	A		-	-	-	0.036	5	0.180	0.025	8	0.203	0.028	7	0.193	-	-	-	0.028	7	0.193
<i>Secondary Distribution</i>																				
AF				-	-		5	0.180		8	0.203		7	0.193		-	-		7	0.193
SEDAN, CMPT (2310-01-096-3343)	A		-	-	-	0.024	22	0.528	0.026	41	1.048	0.026	12	0.307	0.026	3	0.077	0.026	15	0.384
<i>Secondary Distribution</i>																				
AF				-	-		22	0.528		41	1.048		10	0.255		3	0.077		13	0.332
AFNG				-	-		-	-		-	-		1	0.026		-	-		1	0.026
AFR				-	-		-	-		-	-		1	0.026		-	-		1	0.026
AMB, 44 PAX CONV US (2310-00-289-9082)	A		-	-	-	0.139	2	0.278	0.136	19	2.591	0.137	1	0.137	0.137	1	0.137	0.137	2	0.274
<i>Secondary Distribution</i>																				
AF				-	-		2	0.278		19	2.591		1	0.137		1	0.137		2	0.274
AMB, MOD 4X4 US (2310-01-125-9516)	A		-	-	-	0.194	6	1.164	0.179	19	3.397	0.179	3	0.536	0.179	2	0.358	0.179	5	0.894
<i>Secondary Distribution</i>																				
AF				-	-		6	1.164		19	3.397		3	0.536		2	0.358		5	0.894
BUS, 16 PAX US (2310-01-186-2924)	A		-	-	-	0.073	6	0.438	0.077	4	0.309	0.080	2	0.159	-	-	-	0.080	2	0.159
<i>Secondary Distribution</i>																				
AF				-	-		5	0.365		3	0.232		2	0.159		-	-		2	0.159
AFNG				-	-		1	0.073		1	0.077		-	-		-	-		-	-
BUS INTRACITY 4X2 41-51PAX (2310-01-372-1822)	A		-	-	-	-	-	-	0.120	5	0.600	0.121	2	0.241	-	-	-	0.121	2	0.241
<i>Secondary Distribution</i>																				
AF				-	-		-	-		5	0.600		2	0.241		-	-		2	0.241
BUS, 28 PAX US (2310-01-357-8985)	A		-	-	-	0.106	25	2.638	0.109	12	1.303	0.109	5	0.545	0.109	3	0.326	0.109	8	0.871
<i>Secondary Distribution</i>																				
AF				-	-		24	2.532		12	1.303		4	0.436		3	0.326		7	0.762
AFNG				-	-		1	0.106		-	-		1	0.109		-	-		1	0.109
BUS, 41 PAX US (2310-00-877-5647)	A		-	-	-	0.506	4	2.024	0.576	3	1.728	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		4	2.024		3	1.728		-	-		-	-		-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 1 **P-1 Line Item Number / Title:** 821800 / Passenger Carrying Vehicles **Aggregated Items Title:** Passenger Carrying Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
BUS, 44 PAX US (2310-01-357-8986)	A		-	-	-	0.121	22	2.667	0.126	11	1.386	0.126	2	0.252	-	-	-	0.126	2	0.252
<i>Secondary Distribution</i>																				
AF				-	-		22	2.667		10	1.260		2	0.252		-	-		2	0.252
AFNG				-	-		-	-		1	0.126		-	-		-	-		-	-
ARMORED SEDAN (2310-01-135-0997)	A		-	-	-	0.275	9	2.475	0.211	8	1.686	0.211	1	0.211	-	-	-	0.211	1	0.211
<i>Secondary Distribution</i>																				
AF				-	-		9	2.475		8	1.686		1	0.211		-	-		1	0.211
AMBULANCE MODULAR 4X2 (2310-01-129-4702)	A		-	-	-	0.154	2	0.308	0.185	3	0.554	-	-	-	0.185	2	0.370	0.185	2	0.370
<i>Secondary Distribution</i>																				
AF				-	-		2	0.308		3	0.554		-	-		2	0.370		2	0.370
Subtotal: Uncategorized			-	-	-	-	-	14.669	-	-	16.640	-	-	9.016	-	-	1.302	-	-	10.318
Total			-	-	-	-	-	14.669	-	-	16.640	-	-	9.016	-	-	1.302	-	-	10.318

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

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles

P-1 Line Item Number / Title:
822230 / Medium Tactical Vehicle

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	45.682	34.616	15.058	3.400	18.458	6.642	3.559	4.309	4.983	-	118.249
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	45.682	34.616	15.058	3.400	18.458	6.642	3.559	4.309	4.983	-	118.249
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	45.682	34.616	15.058	3.400	18.458	6.642	3.559	4.309	4.983	-	118.249

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

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

Description:

FY19 funding totals include \$9.680M appropriated for Overseas Contingency Operations.

The Family of Medium Tactical Vehicles (FMTV) contains a broad class of military specification vehicles with the capability to operate in austere and adverse terrain. They include, but are not limited to, Cargo Trucks, Wreckers, Dump Trucks, Tractors, Mobilizers, and Medium Tactical Trailers. They provide a range of capabilities such as line haul, mobility, resupply, maintenance, recovery, construction and civil engineering support. They can be ordered with armor and winch systems. These tactical vehicles are used by Combat Communication Units, Air Support Operation Squadrons (ASOS), Explosive Ordinance Disposal units (EOD), and other direct mission support units throughout the Air Force.

M1297 Ground Mobility Vehicle (GMV) 1.1: The GMV is a fast, lightweight, and highly mobile all-terrain combat vehicle developed to fill a ground mobility capability gap that was identified by SOCOM. The GMV is capable of being transported in the CH-47, CV-22 and C-130 aircraft and is low-velocity airdrop capable. The GMV can carry up to nine personnel. It is capable of being "guns up in under a minute after exiting the aircraft, and can carry a variety of armaments. Its adaptable communications suite provides increased operating range and provides the operator real-time access to critical information. The advanced lightweight chassis and suspension allows the GMV to negotiate severe terrain at high speeds, maintain stability and performance while carrying a maximum payload. The main weapon turret allows for 360 degrees of firepower protection up to a 30mm cannon. Door mounted arm-swings can be mounted to handle smaller caliber secondary crew-served weapons. This vehicle is primarily used by Air Force Tactical Air Control Party (TACP) and Special Operations forces.

Infantry Squad Vehicle (ISV): The ISV provides mobility for a 9-person squad with associated equipment to move around the close battle area. The ISV is a lightweight, high mobility platform that is transportable by all means including vertical lift and Low Velocity Air Drop (LVAD). The ISV adds a needed capability to Airmen for mobility to support dispersed wide area security, increased speed, extended reach, burden reduction, carrying enablers, battery charging, mission command enhancement, and offers the commander new maneuver options. This vehicle is primarily used by Special Operations Forces, Tactical Air Control Party, and Security Forces.

This requirement (or modification) 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.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles					P-1 Line Item Number / Title: 822230 / Medium Tactical Vehicle				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A									
Funding for the exhibit contained in PEs 0202834F, 0507831F, 0502831F, 0702831F.									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	262	192	85	13	98	-	-	-	-
	Total Obligation Authority	43.498	32.619	12.586	3.400	15.986	-	-	-	-
AFNG	Quantity	18	9	10	0	10	-	-	-	-
	Total Obligation Authority	1.147	1.228	1.803	0.000	1.803	-	-	-	-
AFR	Quantity	7	5	9	0	9	-	-	-	-
	Total Obligation Authority	1.037	0.769	0.669	0.000	0.669	-	-	-	-
Total:	Quantity	287	206	104	13	117	-	-	-	-
Secondary Distribution	Total Obligation Authority	45.682	34.616	15.058	3.400	18.458	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Medium Tactical Vehicle				- / -	- / 45.682	- / 34.616	- / 15.058	- / 3.400	- / 18.458
P-40	Total Gross/Weapon System Cost				- / -	- / 45.682	- / 34.616	- / 15.058	- / 3.400	- / 18.458

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 FY21 procurement dollars in the amount of \$15.058M will procure, but not be limited to, 104 vehicles in support of installation and unit mission requirements for Air Force personnel.
 FY21 OCO dollars in the amount of \$3.4M will procure, but not be limited to, 13 vehicles in support of installation and unit mission requirements for Air Force personnel.
 Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.
 Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.
 As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.
 Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2						P-1 Line Item Number / Title: 822230 / Medium Tactical Vehicle						Aggregated Items Title: Medium Tactical Vehicle								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
TRK, CGO, MTV, M1083A1P2, W/ WINCH (2320-01-549-8565)	A		-	-	-	0.283	50	14.145	0.256	33	8.448	0.262	10	2.621	0.262	13	3.400	0.262	23	6.021
<i>Secondary Distribution</i>																				
AF			-	-	-		50	14.145		33	8.448		4	1.048		13	3.400		17	4.448
AFNG			-	-	-		-	-		-	-		6	1.573		-	-		6	1.573
DUMP TRK, M1157A1P2, 10TON, W/WINCH (2320-01-552-7782)	A		-	-	-	-	-	0.581	-	-	0.512	0.358	4	1.431	-	-	-	0.358	4	1.431
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.581	-	-	0.512		4	1.431		-	-		4	1.431
M1088 5T SEMI TRAC W/WINCH (2320-01-552-7753)	A		-	-	-	0.180	2	0.360	-	-	-	0.269	7	1.886	-	-	-	0.269	7	1.886
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	-		7	1.886		-	-		7	1.886
AFNG			-	-	-	-	2	0.360	-	-	-		-	-		-	-		-	-
AFR			-	-	-	-	-	0.000	-	-	-		-	-		-	-		-	-
TRAILER, 5 TON M1095 (2330-01-449-1776)	A		-	-	-	0.050	2	0.100	0.048	9	0.432	0.049	14	0.680	-	-	-	0.049	14	0.680
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000		8	0.384		13	0.631		-	-		13	0.631
AFNG			-	-	-	-	2	0.100		1	0.048		1	0.049		-	-		1	0.049
AFR			-	-	-	-	-	0.000		-	-		-	-		-	-		-	-
PMA OTHER GOVERNMENT COST	A		-	-	-	-	-	0.013	-	-	0.010	-	-	0.017	-	-	-	-	-	0.017
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.013		-	0.010		-	0.017		-	-		-	0.017
PMA CONTRACTOR SUPPORT	A		-	-	-	-	-	0.000	-	-	0.708	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000		-	0.708		-	-		-	-		-	-
TRK, CGO, LMTV, M1078A1P2, W/ OUT WINCH (2320-01-549-8577)	A		-	-	-	0.180	70	12.621	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle **Aggregated Items Title:** Medium Tactical Vehicle

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF				-	-		70	12.621		-	-		-	-		-	-		-	-
AFNG				-	-		-	0.000		-	-		-	-		-	-		-	-
AFR				-	-		-	0.000		-	-		-	-		-	-		-	-
TRUCK, DUMP (2320-01-552-7787)	A		-	-	-	0.462	4	1.849	0.299	15	4.492	0.300	2	0.599	-	-	-	0.300	2	0.599
<i>Secondary Distribution</i>																				
AF				-	-		4	1.849		15	4.492		2	0.599		-	-		2	0.599
AFNG				-	-		-	0.000		-	-		-	-		-	-		-	-
AFR				-	-		-	0.000		-	-		-	-		-	-		-	-
TRK, WRECKER, M1089A1P2 W/WINCH (2320-01-595-3994)	A		-	-	-	0.542	13	7.050	0.549	13	7.137	0.549	8	4.388	-	-	-	0.549	8	4.388
<i>Secondary Distribution</i>																				
AF				-	-		12	6.508		11	6.039		8	4.388		-	-		8	4.388
AFNG				-	-		-	0.000		1	0.549		-	-		-	-		-	-
AFR				-	-		1	0.542		1	0.549		-	-		-	-		-	-
TRK, CGO, MTV, M1078A1P2, W/ WINCH (2320-01-549-8611)	A		-	-	-	0.181	7	1.264	0.212	37	7.832	0.216	5	1.078	-	-	-	0.216	5	1.078
<i>Secondary Distribution</i>																				
AF				-	-		2	0.361		35	7.408		3	0.647		-	-		3	0.647
AFNG				-	-		3	0.542		2	0.424		-	-		-	-		-	-
AFR				-	-		2	0.361		-	-		2	0.431		-	-		2	0.431
TLR TK WTR, M149A1 (2330-00-060-6511)	A		-	-	-	0.041	75	3.091	0.030	11	0.330	0.030	22	0.662	-	-	-	0.030	22	0.662
<i>Secondary Distribution</i>																				
AF				-	-		71	2.926		10	0.300		18	0.542		-	-		18	0.542
AFNG				-	-		1	0.041		1	0.030		-	-		-	-		-	-
AFR				-	-		3	0.124		-	-		4	0.120		-	-		4	0.120
TLR, ISO CONTAINER M872 (2330-01-142-1385)	A		-	-	-	0.071	4	0.284	0.056	30	1.680	0.056	8	0.447	-	-	-	0.056	8	0.447
<i>Secondary Distribution</i>																				
AF				-	-		4	0.284		29	1.624		7	0.391		-	-		7	0.391
AFNG				-	-		-	0.000		-	-		1	0.056		-	-		1	0.056
AFR				-	-		-	0.000		1	0.056		-	-		-	-		-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822230 / Medium Tactical Vehicle **Aggregated Items Title:** Medium Tactical Vehicle

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TLR, 5T CGO, M1061A1 (2330-01-452-3157)	A		-	-	-	-	-	0.000	0.013	1	0.013	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF				-	-	-	-	0.000		-	-		-	-		-	-		-	-
AFNG				-	-	-	-	0.000		1	0.013		-	-		-	-		-	-
AFR				-	-	-	-	0.000		-	-		-	-		-	-		-	-
TLR, 2.5T CHS, M200 (2330-01-449-1775)	A		-	-	-	0.010	17	0.176	0.039	14	0.548	0.039	13	0.510	-	-	-	0.039	13	0.510
<i>Secondary Distribution</i>																				
AF				-	-	-	6	0.062		10	0.392		9	0.353		-	-		9	0.353
AFNG				-	-	-	10	0.104		2	0.078		1	0.039		-	-		1	0.039
AFR				-	-	-	1	0.010		2	0.078		3	0.118		-	-		3	0.118
7.5TON DOLLY SET (2330-01-661-5190)	A		-	-	-	0.096	43	4.148	0.086	7	0.602	0.086	5	0.431	-	-	-	0.086	5	0.431
<i>Secondary Distribution</i>																				
AF				-	-	-	43	4.148		5	0.430		4	0.345		-	-		4	0.345
AFNG				-	-	-	-	0.000		1	0.086		1	0.086		-	-		1	0.086
AFR				-	-	-	-	0.000		1	0.086		-	-		-	-		-	-
M871, TRLR ISO CONTAINER (2330-01-226-0701)	A		-	-	-	-	-	0.000	0.052	36	1.872	0.051	6	0.308	-	-	-	0.051	6	0.308
<i>Secondary Distribution</i>																				
AF				-	-	-	-	0.000		36	1.872		6	0.308		-	-		6	0.308
AFNG				-	-	-	-	0.000		-	-		-	-		-	-		-	-
AFR				-	-	-	-	0.000		-	-		-	-		-	-		-	-
Subtotal: Uncategorized			-	-	-	-	-	45.682	-	-	34.616	-	-	15.058	-	-	3.400	-	-	18.458
Total			-	-	-	-	-	45.682	-	-	34.616	-	-	15.058	-	-	3.400	-	-	18.458

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

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

Unit costs and quantities for FY21 are subject to change.

PMA OTHER CONTRACTOR SERVICES: This funding includes provisions for government contract oversight, technical expertise, and program office support associated with the 12 Ton Dollyset.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles

P-1 Line Item Number / Title:
822910 / Cap Vehicles

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	1.700	2.694	1.059	0.000	1.059	1.078	1.097	1.117	1.137	-	9.882
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	1.700	2.694	1.059	0.000	1.059	1.078	1.097	1.117	1.137	-	9.882
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	1.700	2.694	1.059	0.000	1.059	1.078	1.097	1.117	1.137	-	9.882

(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 Civil Air Patrol (CAP) is a Congressionally chartered non-profit corporation that serves as the Auxiliary of the Air Force. CAP uses federally provided resources to provide assistance requested by the DoD, federal, state or local government authorities and non-governmental organizations (NGOs) to perform emergency or non-emergency public purpose missions and activities.

Pursuant to US Code (Title 10 & 36) the purpose of CAP Corporation is to encourage and aid citizens of the US in contributing their efforts, services, and resources in developing aviation and in maintaining air supremacy; and to encourage and develop, by example, the voluntary contribution of private citizens to the public welfare.

Vehicle procurements enable the Civil Air Patrol (CAP) to provide rapid deployment of emergency essential ground teams who are capable of providing critical communications and humanitarian support during national emergencies and disasters.

CAP's procurement processes/standards are described in Department of Defense Grant & Agreement Regulations.

Program element associated with this P-1 Line is: 0901223F

Justification:

FY21 funding procures, but is not limited to, vehicles, Cadet and Aerospace Education programs that encourage and develop the voluntary contribution of private citizens to the public welfare.

Vehicle type and quantities may change in execution year due to market availability, cost changes, mission requirements, additional funding, and needs of the organization. CAP generally receives a mark-up in execution year funds from Congress.

CAP provides critical communication and transportation for ground teams who support 90% of the Air Force's search and rescue (SAR) missions in accordance with the National SAR Plan and disaster relief activities. Vehicles also provide transportation for over 24,000 CAP cadets to support execution of the Aerospace Education and Cadet Program missions as directed by 36 U.S.C Section 403, 10 U.S.C. Section 9442.

AF central procurement processes are not applicable.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles		P-1 Line Item Number / Title: 822910 / Cap Vehicles
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles

P-1 Line Item Number / Title:
822990 / Cargo and Utility Vehicles

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	63.636	32.835	38.920	12.475	51.395	59.175	72.457	40.757	40.527	-	360.782
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	63.636	32.835	38.920	12.475	51.395	59.175	72.457	40.757	40.527	-	360.782
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	63.636	32.835	38.920	12.475	51.395	59.175	72.457	40.757	40.527	-	360.782

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

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

Description:

FY19 funding totals include \$19.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$9.702M appropriated for Overseas Contingency Operations.

This vehicle group consists of pickup trucks, trailers, semi-trailers, trucks, vans, utility trucks, maintenance and facility vehicles essential to base and flying operations. Assets are critical to the Air Force mission and are essential to flight line operations (aircraft maintenance), depot maintenance, component routing to depot back shops and airfield maintenance, and Air Base Civil Engineers performing base housing maintenance and repairs. These items are critical across the spectrum of functional users throughout the Air Force and provide multi-purpose capabilities. These vehicles also support mission needs for light to heavy cargo transport, as well as transportation for air/flight crew personnel. Cargo utility vehicles also provide heavy cargo movement for civil engineering and construction projects. Without the procurement of these replacement vehicles, the Air Force will not have the ability to support broad spectrum Air Force operations.

This requirement (or modification) 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: 0207142F, 0202834F, 0207597F, 0208028F, 0401221F, 0507831F, 0502831F, 0702831F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	1,568	621	780	262	1,042	-	-	-	-
	Total Obligation Authority	60.888	23.436	29.326	12.475	41.801	-	-	-	-
AFNG	Quantity	8	239	146	0	146	-	-	-	-
	Total Obligation Authority	0.240	6.835	6.936	0.000	6.936	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles	P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AFR	Quantity	74	86	61	0	61	-	-	-	-
	Total Obligation Authority	2.508	2.564	2.658	0.000	2.658	-	-	-	-
Total: Secondary Distribution	Quantity	1,650	946	987	262	1,249	-	-	-	-
	Total Obligation Authority	63.636	32.835	38.920	12.475	51.395	-	-	-	-

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 2: Cargo and Utility Vehicles **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Cargo and Utility Vehicles				- / -	- / 63.636	- / 32.835	- / 38.920	- / 12.475	- / 51.395
P-40	Total Gross/Weapon System Cost				- / -	- / 63.636	- / 32.835	- / 38.920	- / 12.475	- / 51.395

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$38.920M will procure, but not be limited to, 987 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$12.475M will procure, but not be limited to, 262 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2					P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles										Aggregated Items Title: Cargo and Utility Vehicles					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized (1)																				
TRK 1/2 Crew Cab 4x4 PU (2320-01-484-6745)	A		-	-	-	0.028	47	1.316	0.023	23	0.533	0.023	23	0.529	-	-	-	0.023	23	0.529
<i>Secondary Distribution</i>																				
AF			-	-	-		47	1.316		23	0.533		21	0.483		-	-		21	0.483
AFNG			-	-	-		-	-		-	-		2	0.046		-	-		2	0.046
TRK TRAC 4X2 24M-44500G (2320-01-663-0742)	A		-	-	-		-	-		-	-	0.100	2	0.199	-	-	-	0.100	2	0.199
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		2	0.199		-	-		2	0.199
SUV, PATROL MWD UP-FIT (2320-01-671-3641)	A		-	-	-		-	-		-	-	0.045	10	0.450	-	-	-	0.045	10	0.450
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		10	0.450		-	-		10	0.450
PAYLOAD TRANSPORT TRUCK (2320-01-529-5420)	A		-	-	-		-	-		-	-	0.165	2	0.330	-	-	-	0.165	2	0.330
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		2	0.330		-	-		2	0.330
TRL VAN 48 FT HARD SIDE (2330-01-627-5975)	A		-	-	-		-	-		-	-	0.052	2	0.104	-	-	-	0.052	2	0.104
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		2	0.104		-	-		2	0.104
SUV DOD PATROL UP-FIT (2320-01-670-6148)	A		-	-	-		-	-		-	-	0.042	7	0.297	-	-	-	0.042	7	0.297
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		7	0.297		-	-		7	0.297
TRK MLTSP 4X2 12500-16999GVW (2320-01-090-7900)	A		-	-	-		-	-		-	-	0.080	12	0.959	-	-	-	0.080	12	0.959
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		12	0.959		-	-		12	0.959
TRK STK 4X2 2.5 TON (2320-01-064-8540)	A		-	-	-		-	-		-	-	0.066	2	0.131	-	-	-	0.066	2	0.131
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		-	-		2	0.131		-	-		2	0.131

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRK PU 4DR 4X4 F450 (2320-01-501-6635)	A		-	-	-	-	-	-	0.051	2	0.101	0.053	19	1.006	-	-	-	0.053	19	1.006
<i>Secondary Distribution</i>																				
AF				-	-		-	-		2	0.101		8	0.424		-	-		8	0.424
AFNG				-	-		-	-		-	-		6	0.317		-	-		6	0.317
AFR				-	-		-	-		-	-		5	0.265		-	-		5	0.265
ARMORED 4X4 SUV (2320-01-537-7753)	A		-	-	-	0.187	12	2.239	-	-	-	0.180	5	0.900	-	-	-	0.180	5	0.900
<i>Secondary Distribution</i>																				
AF				-	-		12	2.239		-	-		5	0.900		-	-		5	0.900
TRK S&P 1000GVW 4X4 (2320-01-302-2698)	A		-	-	-	-	-	-	0.036	12	0.431	0.039	3	0.117	-	-	-	0.039	3	0.117
<i>Secondary Distribution</i>																				
AF				-	-		-	-		12	0.431		3	0.117		-	-		3	0.117
4X2 4DR SUV (2320-01-484-8859)	A		-	-	-	-	-	-	0.021	1	0.021	0.019	13	0.252	-	-	-	0.019	13	0.252
<i>Secondary Distribution</i>																				
AF				-	-		-	-		1	0.021		5	0.097		-	-		5	0.097
AFNG				-	-		-	-		-	-		5	0.097		-	-		5	0.097
AFR				-	-		-	-		-	-		3	0.058		-	-		3	0.058
TRK CGO 4X4 (2320-01-674-9408)	A		-	-	-	-	-	-	0.099	1	0.099	0.093	6	0.557	-	-	-	0.093	6	0.557
<i>Secondary Distribution</i>																				
AF				-	-		-	-		1	0.099		1	0.093		-	-		1	0.093
AFNG				-	-		-	-		-	-		5	0.464		-	-		5	0.464
TRK UTILITY 4X4 4DOOR (2320-01-338-6502)	A		-	-	-	0.029	16	0.471	0.045	4	0.180	0.045	3	0.135	-	-	-	0.045	3	0.135
<i>Secondary Distribution</i>																				
AF				-	-		16	0.471		4	0.180		3	0.135		-	-		3	0.135
TRK CGO CMPT 4X4 3500G (2320-01-087-8223)	A		-	-	-	0.029	18	0.517	0.030	11	0.330	0.030	7	0.210	-	-	-	0.030	7	0.210
<i>Secondary Distribution</i>																				
AF				-	-		18	0.517		11	0.330		7	0.210		-	-		7	0.210
PMA Other Government Costs	A		-	-	-	-	-	0.011	-	-	0.013	-	-	0.016	-	-	-	-	-	0.016
<i>Secondary Distribution</i>																				
AF				-	-		-	0.011		-	0.013		-	0.016		-	-		-	0.016

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2					P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles												Aggregated Items Title: Cargo and Utility Vehicles			
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRK TRAC 55 GVW 6X4 RH (2320-01-058-5724)	A		-	-	-	0.143	13	1.853	0.105	14	1.470	0.127	17	2.162	0.127	1	0.127	0.127	18	2.289
<i>Secondary Distribution</i>																				
AF			-	-	-		13	1.853		14	1.470		12	1.526		1	0.127		13	1.653
AFNG			-	-	-		-	-		-	-		3	0.382		-	-		3	0.382
AFR			-	-	-		-	-		-	-		2	0.254		-	-		2	0.254
TRAILER, DROPDECK, 25T (2330-01-657-3335)	A		-	-	-	0.033	8	0.262	0.034	5	0.169	0.037	2	0.073	-	-	-	0.037	2	0.073
<i>Secondary Distribution</i>																				
AF			-	-	-		8	0.262		4	0.135		2	0.073		-	-		2	0.073
AFNG			-	-	-		-	-		1	0.034		-	-		-	-		-	-
1T S&P 4X2 (2320-00-851-8481)	A		-	-	-	0.027	54	1.465	0.027	56	1.520	0.028	29	0.816	-	-	-	0.028	29	0.816
<i>Secondary Distribution</i>																				
AF			-	-	-		51	1.384		37	1.005		23	0.647		-	-		23	0.647
AFNG			-	-	-		-	-		16	0.434		6	0.169		-	-		6	0.169
AFR			-	-	-		3	0.081		3	0.081		-	-		-	-		-	-
TRK 4X4 DOD MWD UP-FIT (2320-01-670-6147)	A		-	-	-	-	-	-	0.052	4	0.207	0.052	8	0.414	-	-	-	0.052	8	0.414
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		4	0.207		8	0.414		-	-		8	0.414
TRAILER TILT DECK 6TON (2330-01-657-2183)	A		-	-	-	0.016	9	0.144	0.022	1	0.022	0.011	11	0.121	-	-	-	0.011	11	0.121
<i>Secondary Distribution</i>																				
AF			-	-	-		9	0.144		1	0.022		5	0.055		-	-		5	0.055
AFNG			-	-	-		-	-		-	-		6	0.066		-	-		6	0.066
TRAILER VAN CARGO 12TON (2330-01-657-3336)	A		-	-	-	0.039	32	1.235	0.043	5	0.215	0.042	5	0.211	-	-	-	0.042	5	0.211
<i>Secondary Distribution</i>																				
AF			-	-	-		31	1.196		5	0.215		5	0.211		-	-		5	0.211
AFR			-	-	-		1	0.039		-	-		-	-		-	-		-	-
TRAILER 20T 40FT W/COVER KIT (2330-01-094-0007)	A		-	-	-	0.053	12	0.633	0.053	1	0.053	0.053	3	0.160	-	-	-	0.053	3	0.160
<i>Secondary Distribution</i>																				
AF			-	-	-		11	0.580		1	0.053		3	0.160		-	-		3	0.160

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2					P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles										Aggregated Items Title: Cargo and Utility Vehicles					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFR				-	-		1	0.053		-	-		-	-		-	-		-	-
TRAILER LOWBED 35TON (2330-01-051-6648)	A		-	-	-	0.048	19	0.913	0.053	7	0.371	0.057	2	0.113	-	-	-	0.057	2	0.113
<i>Secondary Distribution</i>																				
AF				-	-		19	0.913		6	0.318		2	0.113		-	-		2	0.113
AFR				-	-		-	-		1	0.053		-	-		-	-		-	-
TRAILER LOW-BED 20TON 25FT (2330-01-657-1333)	A		-	-	-	0.032	1	0.032	0.035	2	0.069	0.035	19	0.674	-	-	-	0.035	19	0.674
<i>Secondary Distribution</i>																				
AF				-	-		-	-		2	0.069		19	0.674		-	-		19	0.674
AFNG				-	-		1	0.032		-	-		-	-		-	-		-	-
TRK CGO 4DR 4X4 TLR TWG (2320-01-424-2760)	A		-	-	-	0.030	35	1.035	0.031	11	0.340	0.038	10	0.384	-	-	-	0.038	10	0.384
<i>Secondary Distribution</i>																				
AF				-	-		34	1.005		11	0.340		9	0.346		-	-		9	0.346
AFNG				-	-		-	-		-	-		1	0.038		-	-		1	0.038
AFR				-	-		1	0.030		-	-		-	-		-	-		-	-
TRAILER, 38 FT. SEMI (2330-01-381-9477)	A		-	-	-	0.045	92	4.140	0.034	42	1.445	0.034	72	2.448	0.034	4	0.137	0.034	76	2.585
<i>Secondary Distribution</i>																				
AF				-	-		91	4.095		38	1.308		70	2.380		4	0.137		74	2.517
AFNG				-	-		-	-		3	0.103		2	0.068		-	-		2	0.068
AFR				-	-		1	0.045		1	0.034		-	-		-	-		-	-
TRK VAN 16000-24000 GVW (2320-01-039-7929)	A		-	-	-	-	-	-	-	-	-	0.074	2	0.148	-	-	-	0.074	2	0.148
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		2	0.148		-	-		2	0.148
TRAILER, FLAT BED, 45 FT. AIR RIDE (2330-01-061-8609)	A		-	-	-	0.033	5	0.166	0.035	2	0.070	0.028	18	0.497	-	-	-	0.028	18	0.497
<i>Secondary Distribution</i>																				
AF				-	-		5	0.166		2	0.070		18	0.497		-	-		18	0.497
TRAILER, 50 TON LOWBED (2330-01-058-5911)	A		-	-	-	0.056	11	0.612	0.065	3	0.195	0.069	7	0.481	-	-	-	0.069	7	0.481
<i>Secondary Distribution</i>																				
AF				-	-		11	0.612		3	0.195		7	0.481		-	-		7	0.481

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRAILER, LOWBED, TILT DECK, 22 TON (2330-01-657-3337)	A		-	-	-	0.037	24	0.883	0.040	1	0.040	0.038	11	0.416	-	-	-	0.038	11	0.416
<i>Secondary Distribution</i>																				
AF			-	-	-		23	0.846		1	0.040		10	0.378		-	-		10	0.378
AFNG			-	-	-		-	-		-	-		1	0.038		-	-		1	0.038
AFR			-	-	-		1	0.037		-	-		-	-		-	-		-	-
TRUCK, PICKUP, CREW CAB, 1/2T, 4X4 (2320-01-484-6748)	A		-	-	-	0.026	31	0.798	0.026	29	0.746	0.026	28	0.720	-	-	-	0.026	28	0.720
<i>Secondary Distribution</i>																				
AF			-	-	-		29	0.746		22	0.566		21	0.540		-	-		21	0.540
AFNG			-	-	-		-	-		5	0.129		4	0.103		-	-		4	0.103
AFR			-	-	-		2	0.052		2	0.051		3	0.077		-	-		3	0.077
TRUCK, PICKUP CREW CAB 4X4, 3/4T CU (2320-00-580-2955)	A		-	-	-	0.035	132	4.636	0.033	110	3.610	0.042	100	4.156	0.042	19	0.790	0.042	119	4.946
<i>Secondary Distribution</i>																				
AF			-	-	-		122	4.285		51	1.674		76	3.158		19	0.790		95	3.948
AFNG			-	-	-		1	0.035		50	1.641		19	0.790		-	-		19	0.790
AFR			-	-	-		9	0.316		9	0.295		5	0.208		-	-		5	0.208
TRUCK, PICKUP CREW CAB 4X2, 3/4T CU (2320-00-580-2954)	A		-	-	-	0.032	111	3.552	0.028	83	2.346	0.031	47	1.456	0.031	8	0.248	0.031	55	1.704
<i>Secondary Distribution</i>																				
AF			-	-	-		108	3.456		36	1.018		43	1.332		8	0.248		51	1.580
AFNG			-	-	-		-	-		43	1.215		4	0.124		-	-		4	0.124
AFR			-	-	-		3	0.096		4	0.113		-	-		-	-		-	-
TRUCK, STAKE AND PLATFORM 4X2 10000GVW (2320-01-250-7367)	A		-	-	-	0.031	54	1.674	0.031	21	0.660	0.033	33	1.098	-	-	-	0.033	33	1.098
<i>Secondary Distribution</i>																				
AF			-	-	-		52	1.612		18	0.566		20	0.666		-	-		20	0.666
AFNG			-	-	-		-	-		-	-		8	0.266		-	-		8	0.266
AFR			-	-	-		2	0.062		3	0.094		5	0.166		-	-		5	0.166
TRUCK, CARRYALL 4X2 8 PAX (2320-00-879-7662)	A		-	-	-	0.028	82	2.284	0.028	29	0.808	0.029	38	1.090	0.029	15	0.430	0.029	53	1.520

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2						P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles						Aggregated Items Title: Cargo and Utility Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AF			-	-		81	2.256		20	0.557		32	0.918		15	0.430		47	1.348	
AFNG			-	-		-	-		6	0.167		6	0.172		-	-		6	0.172	
AFR			-	-		1	0.028		3	0.084		-	-		-	-		-	-	
TRUCK, CARRYALL 4X2 15 PAX (2320-01-036-6569)	A		-	-		0.029	118	3.422	0.030	41	1.223	0.030	30	0.895	0.030	8	0.239	0.030	38	1.134
<i>Secondary Distribution</i>																				
AF			-	-		115	3.335		34	1.014		30	0.895		8	0.239		38	1.134	
AFNG			-	-		-	-		4	0.119		-	-		-	-		-	-	
AFR			-	-		3	0.087		3	0.090		-	-		-	-		-	-	
TRUCK, CARRYALL 4X2 7 PAX (2320-01-173-6113)	A		-	-		0.023	30	0.683	0.023	9	0.207	0.023	13	0.296	0.023	1	0.023	0.023	14	0.319
<i>Secondary Distribution</i>																				
AF			-	-		30	0.683		9	0.207		13	0.296		1	0.023		14	0.319	
TRUCK, PICKUP 4X4 1/2 T 4600 & 5799 GVW (2320-00-811-6869)	A		-	-		0.026	49	1.296	0.026	55	1.455	0.028	32	0.897	-	-		0.028	32	0.897
<i>Secondary Distribution</i>																				
AF			-	-		46	1.217		30	0.794		24	0.673		-	-		24	0.673	
AFNG			-	-		-	-		22	0.582		5	0.140		-	-		5	0.140	
AFR			-	-		3	0.079		3	0.079		3	0.084		-	-		3	0.084	
SUV, 4X4 COMPACT 4500 GVW (2320-01-563-7478)	A		-	-		0.027	27	0.729	0.025	5	0.125	0.026	8	0.205	0.025	3	0.075	0.025	11	0.280
<i>Secondary Distribution</i>																				
AF			-	-		27	0.729		5	0.125		8	0.205		3	0.075		11	0.280	
VAN, MAINTENANCE UTILITY DELIVERY (2320-01-176-2223)	A		-	-		0.037	118	4.366	0.031	52	1.634	0.031	60	1.883	0.031	5	0.157	0.031	65	2.040
<i>Secondary Distribution</i>																				
AF			-	-		95	3.515		29	0.910		58	1.820		5	0.157		63	1.977	
AFNG			-	-		1	0.037		4	0.126		-	-		-	-		-	-	
AFR			-	-		22	0.814		19	0.598		2	0.063		-	-		2	0.063	
TRUCK, TRACTOR 44.5G (2320-00-271-1432)	A		-	-		0.142	38	5.404	0.142	26	3.697	0.135	10	1.348	0.135	35	4.725	0.135	45	6.073
<i>Secondary Distribution</i>																				
AF			-	-		37	5.262		22	3.128		2	0.270		35	4.725		37	4.995	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFNG				-	-		-	-	3	0.427		5	0.674		-	-		5	0.674	
AFR				-	-		1	0.142		1	0.142		3	0.404		-	-		3	0.404
TRUCK, VAN PANEL 4X2 (2320-01-013-2754)	A		-	-	-	0.024	69	1.656	0.028	35	0.963	0.024	25	0.600	0.024	18	0.432	0.024	43	1.032
<i>Secondary Distribution</i>																				
AF				-	-		65	1.560		26	0.715		25	0.600		18	0.432		43	1.032
AFNG				-	-		1	0.024		5	0.138		-	-		-	-		-	-
AFR				-	-		3	0.072		4	0.110		-	-		-	-		-	-
TRUCK, TRACTOR 39.5G (2320-01-341-7627)	A		-	-	-	-	-	-	-	-	-	-	-	-	0.107	3	0.322	0.107	3	0.322
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		-	-		3	0.322		3	0.322
TRK 1/2 TON (2320-00-540-1428)	A		-	-	-	0.024	35	0.840	0.020	91	1.850	0.022	25	0.550	0.022	25	0.550	0.022	50	1.100
<i>Secondary Distribution</i>																				
AF				-	-		30	0.720		30	0.610		25	0.550		25	0.550		50	1.100
AFNG				-	-		-	-		50	1.016		-	-		-	-		-	-
AFR				-	-		5	0.120		11	0.224		-	-		-	-		-	-
1/2T 4X4 PU EXT CAB MILTRK (2320-01-483-9971)	A		-	-	-	-	-	-	-	-	-	0.054	2	0.107	-	-	-	0.054	2	0.107
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		2	0.107		-	-		2	0.107
TRUCK, COMPACT CREW CAB 4X4 (2320-01-500-5203)	A		-	-	-	0.031	108	3.348	0.032	19	0.614	0.028	68	1.904	0.028	40	1.120	0.028	108	3.024
<i>Secondary Distribution</i>																				
AF				-	-		106	3.286		16	0.517		68	1.904		40	1.120		108	3.024
AFR				-	-		2	0.062		3	0.097		-	-		-	-		-	-
TRUCK, PICKUP CREW CAB 4X2 (2320-01-504-1443)	A		-	-	-	0.029	125	3.625	0.028	43	1.188	0.028	39	1.089	0.028	32	0.896	0.028	71	1.985
<i>Secondary Distribution</i>																				
AF				-	-		125	3.625		42	1.160		31	0.868		32	0.896		63	1.764
AFNG				-	-		-	-		-	-		3	0.083		-	-		3	0.083
AFR				-	-		-	-		1	0.028		5	0.138		-	-		5	0.138
TRUCK, 1/4 TON 4X2 EXT CAB (2320-01-496-0404)	A		-	-	-	0.028	65	1.820	0.026	70	1.825	0.024	34	0.811	0.024	31	0.739	0.024	65	1.550

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2 **P-1 Line Item Number / Title:** 822990 / Cargo and Utility Vehicles **Aggregated Items Title:** Cargo and Utility Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AF				-	-		52	1.456		28	0.730		-	-		31	0.739		31	0.739
AFNG				-	-		4	0.112		27	0.704		18	0.429		-	-		18	0.429
AFR				-	-		9	0.252		15	0.391		16	0.382		-	-		16	0.382
TRK TRAC MSL SPT (2320-00-344-4397)	A			-	-		-	-	0.180	5	0.900	0.160	1	0.160	0.160	4	0.640	0.160	5	0.800
<i>Secondary Distribution</i>																				
AF				-	-		-	-		5	0.900		-	-		4	0.640		4	0.640
AFNG				-	-		-	-		-	-		1	0.160		-	-		1	0.160
TRAILER, BOLSTER (2330-01-657-3338)	A			-	-		-	-	-	-	-	0.015	2	0.029	-	-	-	0.015	2	0.029
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		2	0.029		-	-		2	0.029
12 TON STAKE PLATFORM TRAILER (2330-01-657-3331)	A			-	-	0.041	10	0.410	0.046	3	0.137	0.046	24	1.099	-	-	-	0.046	24	1.099
<i>Secondary Distribution</i>																				
AF				-	-		9	0.369		3	0.137		1	0.046		-	-		1	0.046
AFNG				-	-		-	-		-	-		18	0.824		-	-		18	0.824
AFR				-	-		1	0.041		-	-		5	0.229		-	-		5	0.229
TLR FB 3-8 TON (2330-00-014-0494)	A			-	-		-	-	-	-	-	0.019	4	0.076	-	-	-	0.019	4	0.076
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		4	0.076		-	-		4	0.076
TRK TRACTOR (2320-01-482-9775)	A			-	-	0.365	8	2.920	-	-	-	0.183	5	0.915	-	-	-	0.183	5	0.915
<i>Secondary Distribution</i>																				
AF				-	-		8	2.920		-	-		5	0.915		-	-		5	0.915
TRAILER, DETACHABLE GOOSENECK 60TON (2330-00-349-2572)	A			-	-	0.070	32	2.246	0.079	12	0.953	0.082	27	2.226	0.082	10	0.825	0.082	37	3.051
<i>Secondary Distribution</i>																				
AF				-	-		32	2.246		12	0.953		5	0.410		10	0.825		15	1.235
AFNG				-	-		-	-		-	-		18	1.486		-	-		18	1.486
AFR				-	-		-	-		-	-		4	0.330		-	-		4	0.330
Subtotal: Uncategorized (1)			-	-	-	-	-	63.636	-	-	32.835	-	-	38.920	-	-	12.475	-	-	51.395
Total			-	-	-	-	-	63.636	-	-	32.835	-	-	38.920	-	-	12.475	-	-	51.395

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

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 2	P-1 Line Item Number / Title: 822990 / Cargo and Utility Vehicles	Aggregated Items Title: Cargo and Utility Vehicles

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles

P-1 Line Item Number / Title:
823210 / Joint Light Tactical Vehicle

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	46.177	73.026	30.544	26.150	56.694	88.572	73.249	176.157	66.510	-	580.385
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	46.177	73.026	30.544	26.150	56.694	88.572	73.249	176.157	66.510	-	580.385
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	46.177	73.026	30.544	26.150	56.694	88.572	73.249	176.157	66.510	-	580.385

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

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

Description:

FY19 funding totals include \$17.482M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$40.999M appropriated for Overseas Contingency Operations.

The Joint Light Tactical Vehicle (JLTV) Family of Vehicles (FoV) has been chosen by the Department of Defense (DOD) as the multi-service (USMC, Army, Navy, and Air Force) tactical vehicle replacement for the HMMWV. The Army has been assigned lead service responsibilities for the JLTV and has established the Army Joint Program Office (JPO). All JLTVs must be acquired through the Army JPO contract. The JLTV provides major operational improvements in Force Protection (FP), payload, mobility, fuel efficiency and reliability, along with the growth potential to meet future mission requirements. The JLTV also has a companion trailer that is available with the vehicle to replace the HMMWV trailer (M1101/M1102).

The USAF investment in JLTVs began in FY17 and FY18 under 823230 - Security and Tactical Vehicles. Starting in FY19 and throughout the FYDP, JLTVs will be procured under BPAC 823210. Currently the USAF plans on purchasing 2,093 JLTVs. The USAF JLTVs span three different vehicle variants consisting of 26 different mission configurations and a JLTV trailer. Some mission configurations already exist and others are currently being developed through Work Directives generated and worked through the JPO.

General Purpose (GP) JLTV - The GP JLTV is the base vehicle that carries a 4 man-crew with a payload of 3,500 lbs. Users: ACC, AFMC, AMC, PACAF, USAFE

Utility (UT) JLTV - The Utility JLTV carries a 2 man crew for cargo delivery or shelter carrier. It supports a payload of 5,100 lbs. Users: ACC, AFMC, AMC, PACAF

Heavy Guns Carrier (HGC) JLTV - The HGC JLTV carries a 4 man-crew and a Gunner in Turret or Remote Weapon System (RWS). It supports crew served weapons (M-2 or MK-19) with Gunner's Protection Kit or RWS. Users: AETC, AFCENT, AFGSC, AFSPC, AMC, PACAF, USAFE

JLTV Trailer - The JLTV Trailer is capable of meeting similar mobility characteristics to the prime mover and is capable of safely carrying payload of 5500 lbs. Users: EOD

Contractor Furnished Equipment (CFE) Kits: These are options that come fully installed and integrated into the vehicle during production. CFE kits include, but are not limited to, Armor kits, intercom kit, run flat tires, combat bumpers, and explosively formed projectile protection kits.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles		P-1 Line Item Number / Title: 823210 / Joint Light Tactical Vehicle
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Government Furnished Equipment (GFE): There are two types of GFE related to the JLTV, Expansion Kits and Overhead Equipment.

- Expansion Kits: These kits are installed during vehicle production and provide all necessary cabling (power, signal, RF), connectors, and hardware to enable installation of Mission Specific Equipment above and beyond the Contractor furnished Base Vehicle Platform Infrastructure and Baseline Integration Kits. These expansion kits include, but are not limited to, VRC radio kits, CREW-CVRJ kits, DVE kits, and shot detection kits.

- Overhead Equipment: Currently, the only Overhead GFE installed during production is the M1114 Turret Ring and Hatch. The M1114 Ring and Hatch will apply to all HGC JLTV configurations.

Field Service Representative (FSR) Support: OEM and/or contractor FSR support is required to provide de-processing (acceptance inspections) and Operator and Maintainer Training when the vehicles are delivered to the user locations. FSRs will may install any Mission Specific Equipment and additional overhead GFE as required by the user.

Work Directives: Studies and engineering tasks are performed by the Army Joint Program Office or OEM engineers to ensure compatibility and operability on any new AF specific requirements that will be added to the JLTV based on user requirements. Work Directives will also be required for any repairs prior to JPO long term repair and maintenance contracts are awarded.

This requirement (or modification) 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 (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: 0202843F, 0507831F, 0502831F, 0702831F

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	101	140	76	56	132	-	-	-	-
	Total Obligation Authority	45.639	70.918	28.110	26.150	54.260	-	-	-	-
AFNG	Quantity	1	5	7	0	7	-	-	-	-
	Total Obligation Authority	0.269	1.688	1.622	0.000	1.622	-	-	-	-
AFR	Quantity	1	1	3	0	3	-	-	-	-
	Total Obligation Authority	0.269	0.420	0.812	0.000	0.812	-	-	-	-
Total:	Quantity	103	146	86	56	142	-	-	-	-
Secondary Distribution	Total Obligation Authority	46.177	73.026	30.544	26.150	56.694	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823210 / Joint Light Tactical Vehicle

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Joint Light Tactical Vehicle				- / -	- / 46.177	- / 73.026	- / 30.544	- / 26.150	- / 56.694
P-40	Total Gross/Weapon System Cost				- / -	- / 46.177	- / 73.026	- / 30.544	- / 26.150	- / 56.694

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$30.544M will procure, but not be limited to, 86 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$26.150M will procure, but not be limited to, 56 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

Unit Cost is subject to change from year-to-year based on buy quantities and user expansion kit requirements provided by each user community based on mission requirements. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3						P-1 Line Item Number / Title: 823210 / Joint Light Tactical Vehicle						Aggregated Items Title: Joint Light Tactical Vehicle								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
M1114 TURRET RING AND HATCH ADAPTER	A		-	-	-	-	-	-	-	-	2.276	-	-	0.364	-	-	0.601	-	-	0.965
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	2.276	-	-	0.364	-	-	0.601	-	-	0.965
PMA: CONTRACTOR SERVICES	A		-	-	-	-	0.523	-	-	1.512	-	-	0.786	-	-	-	-	-	-	0.786
<i>Secondary Distribution</i>																				
AF			-	-	-	-	0.523	-	-	1.512	-	-	0.786	-	-	-	-	-	-	0.786
FIELD SERVICE REPRESENTATIVE SUPPORT (FSR)	A		-	-	-	-	-	-	-	12.748	-	-	1.786	-	-	1.964	-	-	-	3.750
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	12.748	-	-	1.786	-	-	1.964	-	-	-	3.750
CONTRACTOR FURNISHED EQUIPMENT (CFE)	A		-	-	-	-	9.000	-	-	10.105	-	-	5.444	-	-	4.235	-	-	-	9.679
<i>Secondary Distribution</i>																				
AF			-	-	-	-	9.000	-	-	9.624	-	-	4.915	-	-	4.235	-	-	-	9.150
AFNG			-	-	-	-	-	-	-	0.401	-	-	0.302	-	-	-	-	-	-	0.302
AFR			-	-	-	-	-	-	-	0.080	-	-	0.227	-	-	-	-	-	-	0.227
WORK DIRECTIVES - COMPONENT SPLIT	A		-	-	-	-	1.000	-	-	-	-	-	0.325	-	-	-	-	-	-	0.325
<i>Secondary Distribution</i>																				
AF			-	-	-	-	1.000	-	-	-	-	-	0.325	-	-	-	-	-	-	0.325
JLTV TRAILER 2330-01-653-9745	A		-	-	-	-	-	0.060	6	0.360	0.052	16	0.836	-	-	-	0.052	16	0.836	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	6	0.360	-	11	0.575	-	-	-	-	-	11	0.575
AFNG			-	-	-	-	-	-	-	-	-	4	0.209	-	-	-	-	-	4	0.209
AFR			-	-	-	-	-	-	-	-	-	1	0.052	-	-	-	-	-	1	0.052
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	0.021	-	-	0.030	-	-	0.015	-	-	-	-	-	-	0.015
<i>Secondary Distribution</i>																				
AF			-	-	-	-	0.021	-	-	0.030	-	-	0.015	-	-	-	-	-	-	0.015
JLTV, HEAVY GUNS CARRIER (HGC) (2320-01-653-6495)	A		-	-	-	0.269	41	11.029	0.260	123	31.969	0.274	16	4.388	0.274	34	9.326	0.274	50	13.714
<i>Secondary Distribution</i>																				

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823210 / Joint Light Tactical Vehicle **Aggregated Items Title:** Joint Light Tactical Vehicle

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF				-	-		40	10.760		120	31.189		15	4.114		34	9.326		49	13.440
AFNG				-	-		-	-		2	0.520		1	0.274		-	-		1	0.274
AFR				-	-		1	0.269		1	0.260		-	-		-	-		-	-
GOVERNMENT FURNISHED EQUIPMENT (GFE) KITS	A		-	-	-	-	-	8.080	-	-	9.704	-	-	2.195	-	-	4.159	-	-	6.354
<i>Secondary Distribution</i>																				
AF				-	-		-	8.080		-	9.624		-	1.891		-	4.159		-	6.050
AFNG				-	-		-	-		-	-		-	0.304		-	-		-	0.304
AFR				-	-		-	-		-	0.080		-	-		-	-		-	-
JLTV, UTILITY (UT) 2320-01-653-6516	A		-	-	-	0.258	14	3.612	0.249	8	1.990	0.260	27	7.021	0.260	11	2.860	0.260	38	9.881
<i>Secondary Distribution</i>																				
AF				-	-		14	3.612		7	1.741		25	6.501		11	2.860		36	9.361
AFNG				-	-		-	-		1	0.249		1	0.260		-	-		1	0.260
AFR				-	-		-	-		-	-		1	0.260		-	-		1	0.260
JLTV, GENERAL PURPOSE (GP) 2320-01-653-6557	A		-	-	-	0.269	48	12.912	0.259	9	2.332	0.273	27	7.384	0.273	11	3.005	0.273	38	10.389
<i>Secondary Distribution</i>																				
AF				-	-		47	12.643		7	1.814		25	6.838		11	3.005		36	9.843
AFNG				-	-		1	0.269		2	0.518		1	0.273		-	-		1	0.273
AFR				-	-		-	-		-	-		1	0.273		-	-		1	0.273
Subtotal: Uncategorized			-	-	-	-	-	46.177	-	-	73.026	-	-	30.544	-	-	26.150	-	-	56.694
Total			-	-	-	-	-	46.177	-	-	73.026	-	-	30.544	-	-	26.150	-	-	56.694

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

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER CONTRACTOR SERVICES: This funding includes provisions for government contract oversight, technical expertise, and program office support associated with the JLTV program.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles

P-1 Line Item Number / Title:
823230 / Security And Tactical Vehicles

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	1.113	1.315	0.319	0.000	0.319	0.404	0.418	0.425	0.433	-	4.427
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	1.113	1.315	0.319	0.000	0.319	0.404	0.418	0.425	0.433	-	4.427
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	1.113	1.315	0.319	0.000	0.319	0.404	0.418	0.425	0.433	-	4.427

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

Description:

FY19 funding totals include \$0.130M appropriated for Overseas Contingency Operations.

Funding provides for a variety of security and tactical vehicles essential to strategic military operations. This program previously procured the standard diesel powered High Mobility Multi-purpose Wheeled Vehicle (HMMWV) and all configurations used by the Air Force, Guardian Angel Air-Deployable Rescue Vehicle (GAARV), and cargo trailers. Services are no longer procuring HMMWVs as they are being replaced with the Joint Light Tactical Vehicle (BPAC 823210). Instead funding will be used to procure next generation security and tactical vehicles to include the fielding of the Joint All-weather All-Terrain Support Vehicles (JAASV) and Commercial Armored Tactical Vehicle (CATV).

M1101 and M1102 light tactical trailers: The M1101 and M1102 are a single axle, two wheel trailer designed to be towed by a HMMWV. The trailers have the same tires, wheels, and track width as the HMMWV. The only difference between the M1101 and the M1102 trailer is the model information and payload capacity. The trailers have various applications and provide the forces with a light, nimble, rugged trailer built primarily for hauling cargo.

Joint All-weather All-Terrain Support Vehicles (JAASV) operates in "otherwise impassable terrain such as marshy conditions, deep snow, lakes, rivers, frozen ice and extreme cold weather as low as minus 50 degrees Fahrenheit. As a tracked, amphibious platform, it will have a light footprint and be transportable by a CH-47, UH-60 or C-130.

Commercial Armored Tactical Vehicle (CATV) is an armored vehicle on a ruggedized off-road platform which allows for customized seating and equipment storage options with a heavy duty upgraded suspension. The increased ground clearance and robust suspension allows for emergency response in rural regions and natural disaster scenarios. The rotating roof hatch and optional Gunner Protection Kit can accommodate weapons mounts for an M249, Mk19, M2 .50 Cal and additional weapons as necessary. The primary user is Global Strike Command.

Guardian Angel Air-Deployable Rescue Vehicle: The Guardian Angel Air-Deployable Rescue Vehicle (GAARV) is an air-deployable surface recovery platform capable of maneuvering over adverse terrain in order to search for and recover isolated personnel and/or equipment. It will provide increased survivability during "outside the wire" personnel recovery operations, more secure transportation capability to the recovery team and injured/isolated personnel from an area of high threat, and necessary training platforms for operators to familiarize themselves with vehicles they utilize in the area of operations. It also provides operators with increased protection from enemy fire and improvised explosive devices. Funding includes, but is not limited to procurement of end items, training, upgrades, spares, Interim Contractor Support (ICS), repairs, deployment packages and returns. 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. Due to rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. On 7 July

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles		P-1 Line Item Number / Title: 823230 / Security And Tactical Vehicles

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

2017, ACC/A5/8R terminated the HDT Storm solution to the GAARV requirement. A new solution to the requirement will be developed if/when the GAARV requirement is revalidated. Subsequent funding will fund contract termination and Program Management Administration until a follow-on requirement is identified. Funding for GAARV is in Program Element 0207227F.

This requirement (or modification) 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 0202834F, 0207227F, 0507831F, 0502831F, 0702831F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	11	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.965	1.171	0.205	0.000	0.205	-	-	-	-
AFNG	Quantity	8	11	9	0	9	-	-	-	-
	Total Obligation Authority	0.099	0.105	0.114	0.000	0.114	-	-	-	-
AFR	Quantity	4	4	0	0	0	-	-	-	-
	Total Obligation Authority	0.049	0.039	0.000	0.000	0.000	-	-	-	-
Total:	Quantity	23	15	9	0	9	-	-	-	-
Secondary Distribution	Total Obligation Authority	1.113	1.315	0.319	0.000	0.319	-	-	-	-

Justification:
FY21 procurement dollars in the amount of \$0.319M will procure, but not be limited to, 9 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	78.383	67.401	43.157	51.254	94.411	74.057	51.696	90.586	84.062	-	540.596
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	78.383	67.401	43.157	51.254	94.411	74.057	51.696	90.586	84.062	-	540.596
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	78.383	67.401	43.157	51.254	94.411	74.057	51.696	90.586	84.062	-	540.596

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

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

Description:

FY19 funding totals include \$34.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$52.502M appropriated for Overseas Contingency Operations.

The Special Purpose Vehicles group consists of various vehicles for flightline, maintenance, and facility operations used for a variety of purposes. Examples of these vehicles include the IW 40 tractor, an assortment of wreckers and refuse trucks, potable and non-potable water distribution trucks, refueling vehicles, deicers, staircase trucks, lavatory service trucks, high reach maintenance trucks, glycol recovery vehicles, disabled patient vehicles, and tow tractors. Tow tractors are used to tow aircrafts, munition trailers, and ground support equipment. The IW 40 tractor is a small farm tractor used primarily to pull a mower and for other light tasks; the wreckers are used to move disabled vehicles, haul vehicles or to deploy a heavy duty winch. The refuse trucks in this group include one which tilts and dumps a payload and one which compacts refuse prior to discharge. Aircraft refueling vehicles refuel and defuel aircrafts. Potable water distribution trucks provide drinking water to personnel; non-potable water distribution trucks are used primarily to wet down and control dust at a construction site.

This requirement (or modification) 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 0207142F, 0202834F, 0207597F, 0401319F, 0507831F, 0502831F, 0702831F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	339	329	203	260	463	-	-	-	-
	Total Obligation Authority	76.493	60.339	36.077	51.254	87.331	-	-	-	-
AFNG	Quantity	2	43	46	0	46	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
	Total Obligation Authority	0.098	5.204	5.213	0.000	5.213	-	-	-	-
AFR	Quantity	10	16	15	0	15	-	-	-	-
	Total Obligation Authority	1.792	1.858	1.867	0.000	1.867	-	-	-	-
Total:	Quantity	351	388	264	260	524	-	-	-	-
Secondary Distribution	Total Obligation Authority	78.383	67.401	43.157	51.254	94.411	-	-	-	-

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 3: Special Purpose Vehicles **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Special Purpose Vehicles				- / -	- / 78.383	- / 67.401	- / 43.157	- / 51.254	- / 94.411
P-40	Total Gross/Weapon System Cost				- / -	- / 78.383	- / 67.401	- / 43.157	- / 51.254	- / 94.411

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$43.157M will procure, but not be limited to, 264 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$51.254M will procure, but not be limited to, 260 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles **Aggregated Items Title:** Special Purpose Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
C5 STAIRCASE TRK (1730-01-602-5661YW)	A		-	-	-	0.700	1	0.700	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-		1	0.700		-	-		-	-		-	-		-	
TRK HI LIFT FD-SRVG-ACFT (2320-01-305-6339)	A		-	-	-	-	-	-	-	-	0.205	2	0.409	-	-	-	0.205	2	0.409	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		2	0.409		-	-		2	0.409	
TLR CBL REEL 10T & OVER (2330-00-420-7079)	A		-	-	-	-	-	-	-	-	0.100	3	0.300	-	-	-	0.100	3	0.300	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		3	0.300		-	-		3	0.300	
TRK TELE MAINT CNTRN 4X4 (2320-01-372-7398)	A		-	-	-	-	-	-	-	-	0.232	1	0.232	-	-	-	0.232	1	0.232	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		1	0.232		-	-		1	0.232	
TRK REF CMPTR R-HP (2320-00-833-7514)	A		-	-	-	-	-	-	-	-	0.126	2	0.251	-	-	-	0.126	2	0.251	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		2	0.251		-	-		2	0.251	
TRK TEL DIGGER DERRICK (2320-00-455-8464)	A		-	-	-	-	-	-	-	-	0.283	1	0.283	-	-	-	0.283	1	0.283	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		1	0.283		-	-		1	0.283	
TRK RETRIEVER 4X2 (2320-01-454-0723)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TRAC ACFT TWG MB-2 CL II (1740-01-552-9854YW)	A		-	-	-	-	-	-	0.155	30	4.650	0.155	26	4.030	0.155	13	2.015	0.155	39	6.045
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		30	4.650		26	4.030		13	2.015		39	6.045
HI-REACH TRK 55 FT 4X4 (2320-01-544-3637YW)	A		-	-	-	-	-	-	0.572	1	0.572	0.253	1	0.253	-	-	-	0.253	1	0.253
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		1	0.572		1	0.253		-	-		1	0.253

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3						P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles						Aggregated Items Title: Special Purpose Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRK TK A/ S32A-24 250 GAL (2320-00-089-8979)	A		-	-	-	-	-	-	0.073	2	0.146	0.073	2	0.145	-	-	-	0.073	2	0.145
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		2	0.146		2	0.145		-	-		2	0.145
TRK HI REA 30&59FT (2320-00-995-5610YW)	A		-	-	-	-	-	-	0.268	5	1.340	0.209	5	1.046	-	-	-	0.209	5	1.046
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		5	1.340		5	1.046		-	-		5	1.046
HI REACH MAINT PLATFORM (2320-01-249-0097YW)	A		-	-	-	-	-	-	-	-	-	0.684	1	0.684	-	-	-	0.684	1	0.684
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		1	0.684		-	-		1	0.684
TRK WKR HYD TYP1 32000GVW (2320-01-303-3010)	A		-	-	-	-	-	-	0.128	1	0.128	0.145	1	0.145	-	-	-	0.145	1	0.145
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		1	0.128		1	0.145		-	-		1	0.145
TRK MAINT TP UTIL 10000G (2320-01-343-7375)	A		-	-	-	-	-	-	-	-	-	0.037	2	0.073	-	-	-	0.037	2	0.073
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		2	0.073		-	-		2	0.073
TRK, WRECKER TILT-BED (2320-01-380-4755)	A		-	-	-	-	-	-	0.095	4	0.380	0.108	2	0.216	-	-	-	0.108	2	0.216
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		4	0.380		2	0.216		-	-		2	0.216
TRK MOBILE X-RAY (2320-01-563-7052)	A		-	-	-	-	-	-	-	-	-	1.200	3	3.600	-	-	-	1.200	3	3.600
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		3	3.600		-	-		3	3.600
MOBILE MAINTENANCE TRUCK W/CRANE (2320-01-644-1450)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRLR FUEL SRVG 600 GAL (2330-00-289-8934)	A		-	-	-	-	-	-	-	-	-	0.034	2	0.067	-	-	-	0.034	2	0.067
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		2	0.067		-	-		2	0.067

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3						P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles						Aggregated Items Title: Special Purpose Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRK MAINT EXT CAB 4X4 (2320-01-513-8386)	A		-	-	-	-	-	-	-	-	0.053	3	0.159	-	-	-	0.053	3	0.159	
<i>Secondary Distribution</i>																				
AF				-	-	-	-	-	-	-		3	0.159		-	-		3	0.159	
TRK TANK FUEL R-11 HMS (2320-01-626-1177YW)	A		-	-	-	-	-	-	-	-	0.237	25	5.927	-	-	-	0.237	25	5.927	
<i>Secondary Distribution</i>																				
AF				-	-	-	-	-	-	-		25	5.927		-	-		25	5.927	
4000GAL DEICER (1730-01-605-7637YW)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TRAC ACFT TWG MB-4 (1740-00-580-7990YW)	A		-	-	-	0.119	18	2.136	0.105	26	2.732	0.110	8	0.880	0.110	26	2.860	0.110	34	3.740
<i>Secondary Distribution</i>																				
AF				-	-		18	2.136		24	2.522		8	0.880		26	2.860		34	3.740
AFR				-	-		-	-		2	0.210		-	-		-	-		-	-
TOW TRACTOR, MB-2 (1740-00-143-8464YW)	A		-	-	-	0.158	28	4.428	0.139	8	1.112	0.139	10	1.390	0.139	9	1.251	0.139	19	2.641
<i>Secondary Distribution</i>																				
AF				-	-		28	4.428		4	0.556		9	1.251		9	1.251		18	2.502
AFNG				-	-		-	-		2	0.278		1	0.139		-	-		1	0.139
AFR				-	-		-	-		2	0.278		-	-		-	-		-	-
FLIGHT LINE TOW TRACTOR, 4X2 (1740-01-068-8945YW)	A		-	-	-	0.062	47	2.921	0.062	78	4.868	0.069	44	3.021	0.069	54	3.728	0.069	98	6.749
<i>Secondary Distribution</i>																				
AF				-	-		45	2.797		73	4.557		13	0.897		54	3.728		67	4.625
AFNG				-	-		1	0.062		2	0.124		24	1.644		-	-		24	1.644
AFR				-	-		1	0.062		3	0.187		7	0.480		-	-		7	0.480
TRUCK, MAINTENANCE 3/4T 4X4 (2320-00-541-1714)	A		-	-	-	0.035	4	0.139	0.035	18	0.627	0.038	14	0.526	-	-	-	0.038	14	0.526
<i>Secondary Distribution</i>																				
AF				-	-		3	0.104		8	0.279		9	0.338		-	-		9	0.338
AFNG				-	-		-	-		10	0.348		3	0.113		-	-		3	0.113
AFR				-	-		1	0.035		-	-		2	0.075		-	-		2	0.075
TRUCK, TELEPHONE MAINT	A		-	-	-	0.036	8	0.289	0.030	16	0.485	0.030	16	0.484	-	-	-	0.030	16	0.484

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3						P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles						Aggregated Items Title: Special Purpose Vehicles									
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
STD UTIL 4x2 (2320-00-801-9193)																					
<i>Secondary Distribution</i>																					
AF				-	-		5	0.181		7	0.212		14	0.424		-	-		14	0.424	
AFNG				-	-		1	0.036		5	0.152		1	0.030		-	-		1	0.030	
AFR				-	-		2	0.072		4	0.121		1	0.030		-	-		1	0.030	
SEMI-TRL 8000 GAL FUEL TANK (2330-00-844-1684)	A			-	-		-	-		-	-	0.060	1	0.060		-	-		0.060	1	0.060
<i>Secondary Distribution</i>																					
AF				-	-		-	-		-	-		1	0.060		-	-		1	0.060	
TRK TANK 1200G 4X2 (2320-00-177-6777)	A			-	-	0.201	10	2.012	0.130	4	0.518	0.138	4	0.552	0.138	8	1.106	0.138	12	1.658	
<i>Secondary Distribution</i>																					
AF				-	-		10	2.012		4	0.518		4	0.552		8	1.106		12	1.658	
TRK TANK 1200G 4X4 (2320-00-177-6778)	A			-	-	0.147	5	0.735	0.152	5	0.760	0.159	7	1.110	0.159	13	2.069	0.159	20	3.179	
<i>Secondary Distribution</i>																					
AF				-	-		5	0.735		3	0.456		3	0.476		13	2.069		16	2.545	
AFNG				-	-		-	-		2	0.304		4	0.634		-	-		4	0.634	
TRK HI-LIFT 9TON (2320-00-540-3991)	A			-	-	0.240	1	0.240	-	-	-	0.288	3	0.865	-	-	-	0.288	3	0.865	
<i>Secondary Distribution</i>																					
AF				-	-		-	-		-	-		3	0.865		-	-		3	0.865	
AFR				-	-		1	0.240		-	-		-	-		-	-		-	-	
TRK MAINT TEL 4DR (2320-00-451-2184)	A			-	-	0.040	4	0.160	0.034	12	0.412	0.037	3	0.112	-	-	-	0.037	3	0.112	
<i>Secondary Distribution</i>																					
AF				-	-		4	0.160		7	0.240		3	0.112		-	-		3	0.112	
AFNG				-	-		-	-		5	0.172		-	-		-	-		-	-	
LARGE CAPACITY REFUELER VEHICLE (LCRV) (2320-01-592-4114YW)	A			-	-	1.245	1	1.245	0.675	1	0.675	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																					
AF				-	-		1	1.245		1	0.675		-	-		-	-		-	-	
TRK TNK FUEL 6000GAL R-11 (2320-00-433-5695)	A			-	-	0.209	48	10.050	0.212	93	19.747	0.245	36	8.820	0.245	64	15.682	0.245	100	24.502	
<i>Secondary Distribution</i>																					

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3						P-1 Line Item Number / Title: 823990 / Special Purpose Vehicles						Aggregated Items Title: Special Purpose Vehicles									
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
AF				-	-		45	9.423		78	16.562		22	5.390		64	15.682		86	21.072	
AFNG				-	-		-	-		10	2.123		10	2.450		-	-		10	2.450	
AFR				-	-		3	0.627		5	1.062		4	0.980		-	-		4	0.980	
TRUCK, EXTENDED REACH DEICER (1730-01-495-5449YW)	A			-	-		0.676	19	12.842	0.676	16	10.812	0.676	2	1.352	0.676	3	2.029	0.676	5	3.381
<i>Secondary Distribution</i>																					
AF				-	-		19	12.842		16	10.812		2	1.352		3	2.029		5	3.381	
TRK MNT DIGGER DERRICK (2320-01-397-7528)	A			-	-		-	-		0.305	1	0.305	0.321	1	0.321	0.321	6	1.926	0.321	7	2.247
<i>Secondary Distribution</i>																					
AF				-	-		-	-		1	0.305		1	0.321		6	1.926		7	2.247	
CONTRACT MAINTENANCE TRUCK (2320-01-590-4213YW)	A			-	-		-	-		-	-		0.144	3	0.433	0.144	15	2.162	0.144	18	2.595
<i>Secondary Distribution</i>																					
AF				-	-		-	-		-	-		3	0.433		15	2.162		18	2.595	
2000GAL DEICER (1730-01-605-7636YW)	A			-	-		0.000	-		-	-		-	-		-	-		-	-	
PMA OTHER GOVERNMENT COSTS	A			-	-		-	0.021		-	-		0.010	-	0.017		-	-		-	0.017
<i>Secondary Distribution</i>																					
AF				-	-		-	0.021		-	0.010		-	0.017		-	-		-	0.017	
PMA CONTRACTOR SERVICES	A			-	-		-	-		-	-		0.500	-	-		-	-		-	-
<i>Secondary Distribution</i>																					
AF				-	-		-	-		-	0.500		-	-		-	-		-	-	
STAIRCASE TRK (1730-01-601-8086YW)	A			-	-		0.149	18	2.684	0.156	5	0.780	0.161	5	0.806	0.161	12	1.932	0.161	17	2.738
<i>Secondary Distribution</i>																					
AF				-	-		18	2.684		4	0.624		5	0.806		12	1.932		17	2.738	
AFNG				-	-		-	-		1	0.156		-	-		-	-		-	-	
LAVATORY SERVICE TRK (1730-00-981-7605YW)	A			-	-		0.137	22	3.003	0.157	5	0.783	0.224	3	0.673	0.224	8	1.792	0.224	11	2.465
<i>Secondary Distribution</i>																					
AF				-	-		22	3.003		3	0.470		3	0.673		8	1.792		11	2.465	
AFNG				-	-		-	-		2	0.313		-	-		-	-		-	-	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 3 **P-1 Line Item Number / Title:** 823990 / Special Purpose Vehicles **Aggregated Items Title:** Special Purpose Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TRAC ACFT TOW (1740-01-367-9485YW)	A		-	-	-	0.346	19	6.565	0.354	16	5.666	-	-	-	0.445	19	8.455	0.445	19	8.455
<i>Secondary Distribution</i>																				
AF				-	-		18	6.219		14	4.958		-	-		19	8.455		19	8.455
AFNG				-	-		-	-		2	0.708		-	-		-	-		-	-
AFR				-	-		1	0.346		-	-		-	-		-	-		-	-
TRK REFRGR 4X2 (2320-00-770-4467)	A		-	-	-	-	-	-	0.125	8	1.000	0.107	2	0.214	-	-	-	0.107	2	0.214
<i>Secondary Distribution</i>																				
AF				-	-		-	-		8	1.000		2	0.214		-	-		2	0.214
TRK HYDRANT FUEL (2320-01-125-2481)	A		-	-	-	0.410	12	4.919	0.302	3	0.906	0.302	10	3.023	-	-	-	0.302	10	3.023
<i>Secondary Distribution</i>																				
AF				-	-		11	4.509		3	0.906		9	2.721		-	-		9	2.721
AFR				-	-		1	0.410		-	-		1	0.302		-	-		1	0.302
STLR TK CG 38 CYL & UNDER (2330-00-995-5613)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFTT, 4X4 (1740-01-452-4117YW)	A		-	-	-	0.063	41	2.571	0.065	16	1.039	0.068	10	0.678	-	-	-	0.068	10	0.678
<i>Secondary Distribution</i>																				
AF				-	-		41	2.571		15	0.974		7	0.475		-	-		7	0.475
AFNG				-	-		-	-		1	0.065		3	0.203		-	-		3	0.203
DEICER TRK MOUNTED (1730-00-555-6205YW)	A		-	-	-	0.461	45	20.723	0.461	14	6.448	-	-	-	0.425	10	4.247	0.425	10	4.247
<i>Secondary Distribution</i>																				
AF				-	-		45	20.723		13	5.987		-	-		10	4.247		10	4.247
AFNG				-	-		-	-		1	0.461		-	-		-	-		-	-
Subtotal: Uncategorized			-	-	-	-	-	78.383	-	-	67.401	-	-	43.157	-	-	51.254	-	-	94.411
Total			-	-	-	-	-	78.383	-	-	67.401	-	-	43.157	-	-	51.254	-	-	94.411

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

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER CONTRACTOR SERVICES: This funding includes provisions for government contract oversight, technical expertise, and program office support for contracts on all aircraft tow vehicles, refuelers, staircase trucks, and deicers.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment	P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles
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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: 0202834F, 0901279F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	33.064	45.256	8.621	24.903	33.524	28.991	29.646	69.379	64.078	-	303.938
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	33.064	45.256	8.621	24.903	33.524	28.991	29.646	69.379	64.078	-	303.938
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	33.064	45.256	8.621	24.903	33.524	28.991	29.646	69.379	64.078	-	303.938

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

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

Description:

FY19 funding totals include \$9.736M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$16.652M appropriated for Overseas Contingency Operations.

This P-1 line procures a variety of critical fire fighting and crash rescue vehicles. Vehicles typically include, but are not limited to, the following:

- The P-19 Crash Truck is an Air Rescue and Fire Fighting (ARFF) vehicle that is a first response vehicle on the scene of an aircraft fire emergency. It equips bases with the capability to rapidly extinguish aircraft fires. This truck is a mandatory flight line operations safety requirement and is essential at bases with a flying mission. The P-19 also provides fire fighting capability for Air National Guard and Air Force Reserve installations located at municipal airports. An installation's P-19 requirement is determined by the type of aircraft frequenting the aerial facility and the resulting gallons per minute of fire fighting agent required. This vehicle provides aircrew, passenger, weapons, and airframe fire protection at a crash site.
- The P-21 Aerial Lift Truck is a fire fighting vehicle with a 105 foot aerial ladder. It provides improved agent delivery over older model vehicles, as well as the capability to provide elevated delivery of agent involving high rise buildings and warehouse facilities.
- The P-22 4x2 and P-24 4x4 Pumper Trucks are designed primarily to fight structural fires. The trucks have a 750-gallon water tank and a 50-gallon Aqueous FilmFoam class "A" foam tank and are capable of applying 1250 gallons per minute. P-24 is built on a rugged 4x4 chassis that equips forces with limited off-road/rugged terrain capability. The P-22 4x2 Pumper Truck has the same fire fighting capability as the P-24, but is used in urban areas.
- The P-23 Crash Truck is a larger version of the P-19 ARFF truck and has a larger fire suppression capacity. It is primarily assigned at transport, bomber, depot, and cargo aircraft bases.
- The P-26 Water Tanker Truck is a 4000-gallon resupply truck used to support the ARFF vehicles, fight wild land fires, and provide mutual assistance to communities.
- The P-29 Wild Land Firefighting Truck is a four-person crew cab truck which contains a modular agent and pump and roll delivery system as well as firefighting tools and equipment. This truck is outfitted with a Compressed Air Foam System (CAFS) and has a 500 gallon water tank. The truck is intended to combat wild land and brush type fires.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment		P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0202834F, 0901279F
Line Item MDAP/MAIS Code: N/A		

-- The P-30 is a Medium Rescue Vehicle. It is designed to bring equipment, lighting, a winch, and a generator to the scene of a rescue event. This vehicle has 450 cubic feet of storage space and affords easy equipment access and improved storage compartments. This truck is assigned to the larger industrial bases.

-- The P-31 Hazardous Material Vehicle is a dual purpose vehicle that stows and transports hazardous material response equipment for the purpose of mitigating chemical leaks, spills, and releases. This vehicle also provides an incident command workstation area for the purpose of research, command, control, and communications during containment/cleanup operations.

-- The P-33 Quint Truck is a fire fighting truck with a 75 foot aerial ladder. It provides improved agent delivery over older models as well as the capability to provide elevated delivery of agent involving high rise and warehouse facilities.

-- The P-34 is a first response Air Rescue and Fire Fighting (ARFF) vehicle which equips forces with initial "knock down" capability. The P-34 is the first fire truck to employ Ultra High Pressure (UHP) technology which allows the vehicle to discharge a mixture of water and foam at 1350 psi. This UHP technology makes the vehicle three times more effective than a conventional ARFF truck. The truck has a 400 gallon water tank and a 50 gallon foam tank along with a bumper turret and 200 feet of hand line all mounted on an F-550 chassis.

-- The Rapid Intervention Vehicle (RIV) is a first response aircraft fire truck; it is the newest addition to the Air Force's fleet of crash response vehicles. The RIV is the first vehicle in the AF to use new Ultra High Pressure (UHP) fire fighting technology which makes this truck 3 to 3.5 times more efficient at knock-down than conventional ARFF vehicles. This feature increases the length of time the vehicle can remain on the scene without having to be resupplied. Perched on an F550 chassis, the RIV is equipped with a 4-wheel drive train; it provides seating for four, equips fire fighters with limited storage for rescue equipment; has a bumper turret, a 200 ft hand line and a winch. Because of its size, speed and agility this truck can get to a crash scene quickly and perform fire fighting operations until the larger trucks can arrive at the scene.

These vehicles are all built to meet the performance standards of the National Fire Protection Association (NFPA), Occupational Safety and Health Administration (OSHA), Federal Aviation Administration (FAA), and Air Force safety regulations.

This requirement (or modification) 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 FY2008 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 PE 0202834F, 0702831, 0901279F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 4: Fire Fighting Equipment	P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles
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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: 0202834F, 0901279F
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Fire Fighting/Crash Rescue Vehicles				- / -	- / 33.064	- / 45.256	- / 8.621	- / 24.903	- / 33.524
P-40	Total Gross/Weapon System Cost				- / -	- / 33.064	- / 45.256	- / 8.621	- / 24.903	- / 33.524

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$8.621M will procure, but not be limited to, 16 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$24.903M will procure, but not be limited to, 40 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 4 **P-1 Line Item Number / Title:** 824010 / Fire Fighting/Crash Rescue Vehicles **Aggregated Items Title:** Fire Fighting/Crash Rescue Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
TRUCK, AERIAL P-21 4210-01-057-0696	A		-	-	-	-	-	-	-	-	854,000.00	1	0.854	-	-	-	854,000.00	1	0.854	
TRK FFGT 1000G ARFF P-19C AIR TRANSPORTABLE (4210-01-671-4966)	A		-	-	-	-	-	593,000.00	10	5.930	-	-	-	-	-	-	-	-	-	
TRUCK, PUMPER 4X2 P-22 4210-00-224-4564	A		-	-	-	452,000.00	6	2.712	454,000.00	9	4.086	503,000.00	1	0.503	-	-	-	503,000.00	1	0.503
TRUCK, PUMPER 4X4 P-24 4210-00-233-1538	A		-	-	-	504,000.00	7	3.528	462,000.00	11	5.082	463,000.00	2	0.926	463,000.00	4	1.852	463,000.00	6	2.778
TRK FIRE CRS STRIKER 4210-00-702-6801	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TRUCK, WATER TANKER P-26 4210-01-356-4907	A		-	-	-	318,000.00	9	2.862	323,000.00	14	4.522	334,000.00	1	0.334	334,000.00	4	1.336	334,000.00	5	1.670
VEHICLE, MEDIUM RESCUE P-30 4210-01-452-5121	A		-	-	-	255,000.00	12	3.060	293,000.00	7	2.051	293,000.00	2	0.586	293,000.00	1	0.293	293,000.00	3	0.879
TRUCK, QUINT P-33 4210-01-500-1083	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TRUCK, WILDLAND P-29 4210-01-483-1025	A		-	-	-	419,000.00	2	0.838	419,000.00	5	2.095	318,000.00	2	0.636	318,000.00	2	0.636	318,000.00	4	1.272
TRUCK, QUICK ATTACK P-34 4210-01-553-4534	A		-	-	-	344,000.00	3	1.032	353,000.00	1	0.353	-	-	-	-	-	-	-	-	
TRUCK, HAZMAT FIRE FIGHTING P31 4210-01-396-5219	A		-	-	-	493,000.00	4	1.972	435,000.00	5	2.175	527,000.00	1	0.527	-	-	-	527,000.00	1	0.527
TRUCK, ARFF P19UHP 4210-01-608-7285	A		-	-	-	649,000.00	12	7.788	653,000.00	8	5.224	661,000.00	3	1.983	-	-	-	661,000.00	3	1.983
TRK FIRE P23 4210-01-625-9765	A		-	-	-	-	-	-	-	-	829,000.00	1	0.829	829,000.00	2	1.658	829,000.00	3	2.487	
TRUCK, ARFF P23UHP 4210-01-608-7287	A		-	-	-	705,000.00	13	9.165	686,000.00	20	13.720	707,000.00	2	1.414	707,000.00	27	19.089	707,000.00	29	20.503
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	-	0.107	-	-	0.018	-	-	0.029	-	-	0.039	-	-	0.068
Subtotal: Uncategorized			-	-	-	-	-	33.064	-	-	45.256	-	-	8.621	-	-	24.903	-	-	33.524
Total			-	-	-	-	-	33.064	-	-	45.256	-	-	8.621	-	-	24.903	-	-	33.524

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 4	P-1 Line Item Number / Title: 824010 / Fire Fighting/Crash Rescue Vehicles	Aggregated Items Title: Fire Fighting/Crash Rescue Vehicles

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

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment	P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	36.217	25.068	12.897	14.167	27.064	35.003	37.592	31.062	43.862	-	235.868
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	36.217	25.068	12.897	14.167	27.064	35.003	37.592	31.062	43.862	-	235.868
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	36.217	25.068	12.897	14.167	27.064	35.003	37.592	31.062	43.862	-	235.868
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY19 funding totals include \$24.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$2.944M appropriated for Overseas Contingency Operations.

This program includes various material handling vehicles with an individual item procurement value of less than \$5M. These vehicles consist of Forklifts, Container Handlers, Locomotive, Baggage Conveyors, Warehouse Tugs and Warehouse Cranes critical to Depot and Base Supply Operations.

This requirement (or modification) 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 these exhibits contained in PEs: 0202834F, 0207142F, 0207597F, 0208028F, 0507831F, 0702831F.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF									
Quantity	279	232	74	35	109	-	-	-	-
Total Obligation Authority	33.824	22.662	11.161	14.167	25.328	-	-	-	-
AFNG									
Quantity	0	0	0	0	0	-	-	-	-
Total Obligation Authority	0.000	0.000	0.000	0.000	0.000	-	-	-	-
AFR									
Quantity	25	24	27	0	27	-	-	-	-
Total Obligation Authority	2.393	2.406	1.736	0.000	1.736	-	-	-	-
Total:	Quantity	304	256	101	35	136	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment	P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	36.217	25.068	12.897	14.167	27.064	-	-	-	-

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 5: Materials Handling Equipment	P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Materials Handling Vehicles				- / -	- / 36.217	- / 25.068	- / 12.897	- / 14.167	- / 27.064
P-40	Total Gross/Weapon System Cost				- / -	- / 36.217	- / 25.068	- / 12.897	- / 14.167	- / 27.064

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$12.897M will procure, but not be limited to, 101 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$14.167M will procure, but not be limited to, 35 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 **P-1 Line Item Number / Title:** 825990 / Materials Handling Vehicles **Aggregated Items Title:** Materials Handling Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
FORKLIFT, 4K ELEC NARI 001813113	A		-	-	-	-	-	-	-	-	0.034	1	0.034	-	-	-	0.034	1	0.034	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-	1	0.034	-	-	-	-	-	1	0.034
Halvorsen 25K Loader - ECAOS/EDI only (3930-01-466-3515CT)	A		-	-	-	0.899	6	5.394	-	-	-	-	-	0.875	8	7.000	0.875	8	7.000	
<i>Secondary Distribution</i>																				
AF			-	-	-	6	5.394	-	-	-	-	-	-	8	7.000	-	-	-	8	7.000
TRK FL DED 4000# PT (3930-01-188-3585)	A		-	-	-	-	-	-	0.050	1	0.050	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	1	0.050	-	-	-	-	-	-	-	-	-
FORKLIFT, 4K ELECTRIC STANDARD 000539175	A		-	-	-	0.047	16	0.752	0.047	3	0.141	0.047	1	0.047	-	-	-	0.047	1	0.047
<i>Secondary Distribution</i>																				
AF			-	-	-	16	0.752	-	-	3	0.141	-	1	0.047	-	-	-	-	1	0.047
FORKLIFT, 2K ELECTRIC STANDARD 006782580	A		-	-	-	0.031	9	0.279	0.033	6	0.198	0.031	2	0.062	-	-	-	0.031	2	0.062
<i>Secondary Distribution</i>																				
AF			-	-	-	9	0.279	-	-	6	0.198	-	1	0.031	-	-	-	-	1	0.031
AFR			-	-	-	-	-	-	-	-	-	-	1	0.031	-	-	-	-	1	0.031
FORKLIFT, 4K DED 010130338	A		-	-	-	0.046	25	1.150	0.046	28	1.288	0.046	12	0.547	-	-	-	0.046	12	0.547
<i>Secondary Distribution</i>																				
AF			-	-	-	21	0.966	-	-	22	1.012	-	7	0.319	-	-	-	-	7	0.319
AFR			-	-	-	4	0.184	-	-	6	0.276	-	5	0.228	-	-	-	-	5	0.228
FORKLIFT, 4K COMMERCIAL 014330885	A		-	-	-	0.044	21	0.924	0.044	22	0.968	0.044	7	0.308	-	-	-	0.044	7	0.308
<i>Secondary Distribution</i>																				
AF			-	-	-	21	0.924	-	-	22	0.968	-	3	0.132	-	-	-	-	3	0.132
AFR			-	-	-	-	-	-	-	-	-	-	4	0.176	-	-	-	-	4	0.176
FORKLIFT, 15K COMMERCIAL 010471597	A		-	-	-	0.100	1	0.100	0.084	5	0.420	0.086	2	0.172	-	-	-	0.086	2	0.172

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5						P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles						Aggregated Items Title: Materials Handling Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AF				-	-		-	-		5	0.420		2	0.172		-	-		2	0.172
AFR				-	-		1	0.100		-	-		-	-		-	-		-	-
FORKLIFT, 6K RT 008792157	A		-	-	-	0.125	4	0.500	0.125	1	0.125	0.125	1	0.125	-	-	-	0.125	1	0.125
<i>Secondary Distribution</i>																				
AF				-	-		4	0.500		1	0.125		1	0.125		-	-		1	0.125
TRUCK MOUNTED CONVEYOR BELT 000195630	A		-	-	-	0.062	13	0.812	0.073	1	0.073	0.058	3	0.175	-	-	-	0.058	3	0.175
<i>Secondary Distribution</i>																				
AF				-	-		13	0.812		1	0.073		3	0.175		-	-		3	0.175
TRUCK, FORKLIFT NARROW AISLE 6K 014214083	A		-	-	-	0.145	4	0.580	0.145	6	0.870	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		4	0.580		6	0.870		-	-		-	-		-	-
FORKLIFT, 6K DED 010525219	A		-	-	-	0.054	32	1.728	0.054	26	1.404	0.054	18	0.970	0.054	5	0.269	0.054	23	1.239
<i>Secondary Distribution</i>																				
AF				-	-		32	1.728		26	1.404		14	0.754		5	0.269		19	1.023
AFR				-	-		-	-		-	-		4	0.216		-	-		4	0.216
4K AT 23.5FT RT BOOM FL 012104756	A		-	-	-	0.124	5	0.620	0.252	11	2.772	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		5	0.620		11	2.772		-	-		-	-		-	-
FORKLIFT, 6K COMMERCIAL 014330887	A		-	-	-	0.045	26	1.170	0.045	30	1.350	0.045	7	0.318	-	-	-	0.045	7	0.318
<i>Secondary Distribution</i>																				
AF				-	-		23	1.035		30	1.350		3	0.136		-	-		3	0.136
AFR				-	-		3	0.135		-	-		4	0.182		-	-		4	0.182
FORKLIFT, FAT 10K AT 004889695	A		-	-	-	0.211	33	6.963	0.204	32	6.542	0.211	5	1.055	0.211	9	1.899	0.211	14	2.954
<i>Secondary Distribution</i>																				
AF				-	-		28	5.908		25	5.212		3	0.633		9	1.899		12	2.532
AFR				-	-		5	1.055		7	1.330		2	0.422		-	-		2	0.422
FORKLIFT, 10K STANDARD 008566897	A		-	-	-	0.090	46	4.140	0.092	31	2.852	0.092	12	1.104	-	-	-	0.092	12	1.104
<i>Secondary Distribution</i>																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5					P-1 Line Item Number / Title: 825990 / Materials Handling Vehicles										Aggregated Items Title: Materials Handling Vehicles					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF				-	-		37	3.330		24	2.208		9	0.828		-	-		9	0.828
AFR				-	-		9	0.810		7	0.644		3	0.276		-	-		3	0.276
FORKLIFT, 3K ELECTRIC 011022185	A		-	-	-	0.025	4	0.100	0.025	1	0.025	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		3	0.075		1	0.025		-	-		-	-		-	-
AFR				-	-		1	0.025		-	-		-	-		-	-		-	-
FORKLIFT, 6K ELECTRIC 010471157	A		-	-	-	0.046	4	0.184	0.039	19	0.741	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		4	0.184		15	0.585		-	-		-	-		-	-
AFR				-	-		-	-		4	0.156		-	-		-	-		-	-
10K 55' REACH TELEHANDLER 015769312	A		-	-	-	0.222	15	3.330	0.208	14	2.912	0.222	6	1.334	0.222	9	2.001	0.222	15	3.335
<i>Secondary Distribution</i>																				
AF				-	-		15	3.330		14	2.912		6	1.334		9	2.001		15	3.335
4K WHSE TRAC 010070115	A		-	-	-	0.051	20	1.020	0.057	7	0.399	0.051	13	0.665	-	-	-	0.051	13	0.665
<i>Secondary Distribution</i>																				
AF				-	-		19	0.969		7	0.399		9	0.460		-	-		9	0.460
AFR				-	-		1	0.051		-	-		4	0.205		-	-		4	0.205
FORKLIFT, 50K AT CNTR HD 013073658	A		-	-	-	-	-	-	-	-	-	-	-	-	0.746	4	2.983	0.746	4	2.983
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		-	-		4	2.983		4	2.983
F/L 100K REACH STACKER 014958475	A		-	-	-	0.466	8	3.730	0.475	2	0.950	0.486	5	2.429	-	-	-	0.486	5	2.429
<i>Secondary Distribution</i>																				
AF				-	-		8	3.730		2	0.950		5	2.429		-	-		5	2.429
FORKLIFT, 25K 013904562	A		-	-	-	0.697	1	0.697	0.234	1	0.234	0.696	5	3.480	-	-	-	0.696	5	3.480
<i>Secondary Distribution</i>																				
AF				-	-		1	0.697		1	0.234		5	3.480		-	-		5	3.480
FORKLIFT, TRUCK ELEC NARI 3000# 011028906	A		-	-	-	0.033	3	0.099	0.033	7	0.231	0.033	1	0.033	-	-	-	0.033	1	0.033
<i>Secondary Distribution</i>																				
AF				-	-		2	0.066		7	0.231		1	0.033		-	-		1	0.033

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 5 **P-1 Line Item Number / Title:** 825990 / Materials Handling Vehicles **Aggregated Items Title:** Materials Handling Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFR				-	-		1	0.033		-	-		-	-		-	-		-	-
PMA OTHER GOVERNMENT COSTS	A		-	-	-		-	0.017	-	-	0.041	-	-	0.039	-	-	0.015	-	-	0.054
<i>Secondary Distribution</i>																				
AF				-	-		-	0.017		-	0.041		-	0.039		-	0.015		-	0.054
FORKLIFT, TRUCK AT LGE CAP 13K 011260457	A		-	-	-	0.241	8	1.928	0.241	2	0.482		-			-			-	
<i>Secondary Distribution</i>																				
AF				-	-		8	1.928		2	0.482		-	-		-	-		-	-
Subtotal: Uncategorized			-	-	-	-	-	36.217	-	-	25.068	-	-	12.897	-	-	14.167	-	-	27.064
Total			-	-	-	-	-	36.217	-	-	25.068	-	-	12.897	-	-	14.167	-	-	27.064

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

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support	P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	47.280	6.678	3.577	5.759	9.336	9.173	9.024	7.265	9.236	-	97.992
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	47.280	6.678	3.577	5.759	9.336	9.173	9.024	7.265	9.236	-	97.992
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	47.280	6.678	3.577	5.759	9.336	9.173	9.024	7.265	9.236	-	97.992

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

Description:

FY19 funding totals include \$9.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$3.753M appropriated for Overseas Contingency Operations.

This program procures snow removal vehicles and commercial sweepers used on all airfield surfaces to remove snow and help prevent foreign object damage (FOD) to aircraft engines and tires. Snow removal equipment includes front mounted brooms, multi-purpose blowers, and plows. These vehicles provide critical mission support to airfield operations because fighter aircraft cannot land or take off with ice on the runway. Multi-purpose vacuum sweepers maintain airfields, roads, and grounds. Vacuum sweepers provide equally important support at all air bases due to the high cost of FOD and the potential for loss in FOD-related engine accidents.

These assets are critical to the Air Force mission. They are the primary equipment used for snow, ice, and debris removal from runways and taxiways year round. The vital functions of these vehicles prevent the closing of airfields due to debris and/or snow and ice buildup.

This requirement (or modification) 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: 0202834F, 0208028F, 0502831F, 0507831F, 0702831F.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF									
Quantity	138	31	15	21	36	-	-	-	-
Total Obligation Authority	46.902	6.266	2.427	5.759	8.186	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support	P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AFNG	Quantity	1	1	3	0	3	-	-	-	-
	Total Obligation Authority	0.303	0.335	0.327	0.000	0.327	-	-	-	-
AFR	Quantity	1	1	4	0	4	-	-	-	-
	Total Obligation Authority	0.075	0.077	0.823	0.000	0.823	-	-	-	-
Total: Secondary Distribution	Quantity	140	33	22	21	43	-	-	-	-
	Total Obligation Authority	47.280	6.678	3.577	5.759	9.336	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support **P-1 Line Item Number / Title:** 826210 / Runway Snow Remov And Cleaning Equ

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Runway Snow Remov And Cleaning Equ				- / -	- / 47.280	- / 6.678	- / 3.577	- / 5.759	- / 9.336
P-40	Total Gross/Weapon System Cost				- / -	- / 47.280	- / 6.678	- / 3.577	- / 5.759	- / 9.336

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$3.577M will procure, but not be limited to, 22 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$5.759M will procure, but not be limited to, 21 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6						P-1 Line Item Number / Title: 826210 / Runway Snow Remov And Cleaning Equ						Aggregated Items Title: Runway Snow Remov And Cleaning Equ								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
CLEANER, VAC MULTIPURPOSE (2438)	A		-	-	-	173,000.00	44	7.612	173,000.00	16	2.768	173,000.00	7	1.211	173,000.00	5	0.865	173,000.00	12	2.076
<i>Secondary Distribution</i>																				
AF			-	-	-		44	7.612		16	2.768		5	0.865		5	0.865		10	1.730
AFNG			-	-	-		-	-		-	-		1	0.173		-	-		1	0.173
AFR			-	-	-		-	-		-	-		1	0.173		-	-		1	0.173
RAPID RUNWAY REPAIR DIRT SWEEPER (1997)	A		-	-	-	75,000.00	14	1.050	77,000.00	8	0.616	77,000.00	12	0.924	77,000.00	7	0.539	77,000.00	19	1.463
<i>Secondary Distribution</i>																				
AF			-	-	-		13	0.975		7	0.539		8	0.616		7	0.539		15	1.155
AFNG			-	-	-		-	-		-	-		2	0.154		-	-		2	0.154
AFR			-	-	-		1	0.075		1	0.077		2	0.154		-	-		2	0.154
54K PLOW (7657)	A		-	-	-	303,000.00	11	3.333	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		10	3.030		-	-		-	-		-	-		-	-
AFNG			-	-	-		1	0.303		-	-		-	-		-	-		-	-
DUMP W/SNOW PLOW (3963)	A		-	-	-	-	-	-	180,000.00	2	0.360	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		-	-		2	0.360		-	-		-	-		-	-
SNOW BROOM AND BLOWER (3770)	A		-	-	-	527,000.00	28	14.756	449,000.00	3	1.347	449,000.00	1	0.449	449,000.00	3	1.347	449,000.00	4	1.796
<i>Secondary Distribution</i>																				
AF			-	-	-		28	14.756		3	1.347		1	0.449		3	1.347		4	1.796
SNOW REMOVAL UNIT 3K TON PER HOUR (5554)	A		-	-	-	526,000.00	28	14.728	496,000.00	1	0.496	496,000.00	2	0.992	496,000.00	6	2.976	496,000.00	8	3.968
<i>Secondary Distribution</i>																				
AF			-	-	-		28	14.728		1	0.496		1	0.496		6	2.976		7	3.472
AFR			-	-	-		-	-		-	-		1	0.496		-	-		1	0.496
45K REVERSIBLE PLOW (1944)	A		-	-	-	386,000.00	15	5.790	335,000.00	3	1.005	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		15	5.790		2	0.670		-	-		-	-		-	-
AFNG			-	-	-		-	-		1	0.335		-	-		-	-		-	-
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	-	0.011	-	-	0.086	-	-	0.001	-	-	0.032	-	-	0.033

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826210 / Runway Snow Remov And Cleaning Equ **Aggregated Items Title:** Runway Snow Remov And Cleaning Equ

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AF				-	-		-	0.011		-	0.086		-	0.001		-	0.032		-	0.033
Subtotal: Uncategorized			-	-	-	-	-	47.280	-	-	6.678	-	-	3.577	-	-	5.759	-	-	9.336
Total			-	-	-	-	-	47.280	-	-	6.678	-	-	3.577	-	-	5.759	-	-	9.336

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

Remarks:

Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support	P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	114.603	70.013	43.095	20.653	63.748	89.128	84.275	73.864	88.855	-	584.486
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	114.603	70.013	43.095	20.653	63.748	89.128	84.275	73.864	88.855	-	584.486
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	114.603	70.013	43.095	20.653	63.748	89.128	84.275	73.864	88.855	-	584.486

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

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

Description:

FY19 funding totals include \$9.680M appropriated for Overseas Contingency Operations.

FY20 funding totals include \$11.837M appropriated for Overseas Contingency Operations.

This vehicle group consist of maintenance/test vans, water distribution trucks and heavy construction equipment (dozers, large cranes, large dump trucks, rock crushers, motorized scrapers, well-drilling vehicles, compactors, wheel loaders, graders, cement mixers, paving machines, excavators, sewer trucks, refuse trucks, trenches and backhoes). The assets are critical to the Air Force mission and are crucial to keeping many sortie generation/sortie sustainment missions supported and operational. The types of items contained in this P-1 line are critical (deployed) assets used in direct support of Air Force units engaged in contingency operations.

This requirement (or modification) 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: 0202834F, 0208028F, 0502831F, 0507831F, 0702831F.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	605	389	210	126	336	-	-	-
	Total Obligation Authority	112.346	68.963	42.225	20.653	62.878	-	-	-
AFNG	Quantity	7	5	8	0	8	-	-	-
	Total Obligation Authority	1.978	0.776	0.673	0.000	0.673	-	-	-
AFR	Quantity	1	4	2	0	2	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support					P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A										

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
	Total Obligation Authority	0.279	0.274	0.197	0.000	0.197	-	-	-	-
Total:	Quantity	613	398	220	126	346	-	-	-	-
Secondary Distribution	Total Obligation Authority	114.603	70.013	43.095	20.653	63.748	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 02: Vehicular Equipment / BSA 6: Base Maintenance Support **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Base Maintenance Support Vehicles				- / -	- / 114.603	- / 70.013	- / 43.095	- / 20.653	- / 63.748
P-40	Total Gross/Weapon System Cost				- / -	- / 114.603	- / 70.013	- / 43.095	- / 20.653	- / 63.748

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$43.095M will procure, but not be limited to, 220 vehicles in support of installation and unit mission requirements for Air Force personnel.

FY21 OCO dollars in the amount of \$20.653M will procure, but not be limited to, 126 vehicles in support of installation and unit mission requirements for Air Force personnel.

Quantities are based on current requirements provided by the 441 Vehicle Support Chain Operations Squadron (VSCOS) IAW the process outlined in AFI 24-302, Vehicle Management. The requirements are generated from the priority buy model that is used to support the Planning, Programming, Budgeting and Execution (PPBE) process. The model calculates vehicle requirements by fund year by BPAC using end of life projections based on depreciation and service life of the vehicle, cumulative sustainment cost and mission priority.

Quantities reflected on the PDOCs show current requirements for each year supporting Active Duty, Air Force Reserve Center (AFRC), Air National Guard (ANG), Rapid Airfield Damage Repair (RADR), European Deterrence Initiative (EDI), Regional Base Cluster Prepositioning Kits (RBCP) for PACOM, and other initiatives as they arise.

As the model applies the life expectancy/sustainment cost/mission priority logic in generating requirements, there can be gaps in individual vehicle type (NSN) requirements from year-to-year.

Unit Cost is subject to change from year-to-year based on buy quantities, CONUS/OCONUS locations, inflation and additional requirements (options required by users). Examples of options include, but are not limited to, specialized trailer towing packages, export (non-Ultra Low Sulfur Diesel) engines, and mission specific specialized attachments for construction vehicles. Unit cost is also subject to change based on fluctuations in contract pricing.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6					P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles										Aggregated Items Title: Base Maintenance Support Vehicles					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
DUMP TRUCK, 6X4, 64K GVW (2320-01-524-6043)	A		-	-	-	0.160	18	2.883	0.154	3	0.462	0.154	1	0.154	-	-	-	0.154	1	0.154
<i>Secondary Distribution</i>																				
AF			-	-	-		18	2.883		3	0.462		1	0.154		-	-		1	0.154
BATCHING PLANT (3895-01-063-2722)	A		-	-	-	-	-	-	1.193	1	1.193	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		1	1.193		-	-		-	-		-	-
MKR TRAFFIC (3825-00-542-2515)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRANE 25TON ROUGH TERRAIN (3810-01-479-9745)	A		-	-	-	0.279	2	0.558	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		1	0.279		-	-		-	-		-	-		-	-
AFR			-	-	-		1	0.279		-	-		-	-		-	-		-	-
MIXER, CONCRETE TRK (3895-01-543-8568)	A		-	-	-	-	-	-	0.250	5	1.250	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		5	1.250		-	-		-	-		-	-
TRAC FTRACD SZT4 (2410-00-166-4176)	A		-	-	-	0.119	5	0.595	0.146	5	0.730	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		5	0.595		4	0.584		-	-		-	-		-	-
AFR			-	-	-		-	-		1	0.146		-	-		-	-		-	-
FRONT HOIST REF TRK (2320-01-470-6102)	A		-	-	-	-	-	-	0.225	3	0.675	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		3	0.675		-	-		-	-		-	-
SCOOP LOADER (3805-00-260-1967)	A		-	-	-	0.149	23	3.427	0.153	5	0.766	0.153	4	0.613	-	-	-	0.153	4	0.613
<i>Secondary Distribution</i>																				
AF			-	-	-		22	3.278		5	0.766		4	0.613		-	-		4	0.613
AFNG			-	-	-		1	0.149		-	-		-	-		-	-		-	-
TRK DP 24000-33000G 4X2 (2320-00-833-6117)	A		-	-	-	0.082	23	1.886	0.082	3	0.246	0.082	6	0.492	-	-	-	0.082	6	0.492
<i>Secondary Distribution</i>																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6					P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles												Aggregated Items Title: Base Maintenance Support Vehicles			
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF				-	-		23	1.886		3	0.246		5	0.410		-	-		5	0.410
AFNG				-	-		-	-		-	-		1	0.082		-	-		1	0.082
5 TON DUMP TRUCK (2320-00-706-5348)	A		-	-	-	0.116	7	0.814	0.116	1	0.116	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		6	0.698		-	-		-	-		-	-		-	-
AFNG				-	-		1	0.116		1	0.116		-	-		-	-		-	-
2.5 CY SCOOP LOADER FT (3805-00-728-9718)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXCAVATOR DIESEL ENGINE DRIVEN PT (3805-01-106-7176)	A		-	-	-	0.278	14	3.889	0.329	7	2.301	0.329	6	1.974	0.329	10	3.287	0.329	16	5.261
<i>Secondary Distribution</i>																				
AF				-	-		14	3.889		7	2.301		6	1.974		10	3.287		16	5.261
WHEELED DITCHING MACHINE (3805-01-032-9974)	A		-	-	-	0.211	22	4.639	0.213	3	0.639	0.213	4	0.851	-	-	-	0.213	4	0.851
<i>Secondary Distribution</i>																				
AF				-	-		22	4.639		3	0.639		4	0.851		-	-		4	0.851
1.5 CY SCOOP LDR W/Q CPLR (3805-01-074-8111)	A		-	-	-	0.126	22	2.772	0.121	3	0.363	0.121	4	0.484	-	-	-	0.121	4	0.484
<i>Secondary Distribution</i>																				
AF				-	-		22	2.772		3	0.363		2	0.242		-	-		2	0.242
AFNG				-	-		-	-		-	-		2	0.242		-	-		2	0.242
LODR SCP PT 4CY (3805-01-075-1816)	A		-	-	-	0.244	40	9.760	0.262	24	6.298	0.262	30	7.860	0.262	16	4.198	0.262	46	12.058
<i>Secondary Distribution</i>																				
AF				-	-		39	9.516		24	6.298		30	7.860		16	4.198		46	12.058
AFNG				-	-		1	0.244		-	-		-	-		-	-		-	-
SCOOP LDR W/BKHOE (3805-00-148-2169)	A		-	-	-	0.084	38	3.174	0.119	8	0.950	0.119	3	0.357	0.119	5	0.594	0.119	8	0.951
<i>Secondary Distribution</i>																				
AF				-	-		38	3.174		8	0.950		3	0.357		5	0.594		8	0.951
SCOOP LOADER, SKID STEER 1CY (3805-01-257-5636)	A		-	-	-	0.076	15	1.144	0.076	4	0.305	0.076	1	0.076	-	-	-	0.076	1	0.076
<i>Secondary Distribution</i>																				
AF				-	-		15	1.144		4	0.305		1	0.076		-	-		1	0.076

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6						P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles						Aggregated Items Title: Base Maintenance Support Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
DISTR BIT TRK MTD (3895-00-352-8105)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CRAWLER DITCHING MACHINE (3805-00-080-1931)	A		-	-	-	-	-	-	-	-	-	0.286	1	0.286	-	-	-	0.286	1	0.286
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-	1	0.286	-	-	-	-	1	0.286	
ROLLER MOT PT SP 15T (3895-00-078-5898)	A		-	-	-	0.088	11	0.968	0.080	22	1.756	0.080	8	0.639	-	-	-	0.080	8	0.639
<i>Secondary Distribution</i>																				
AF			-	-	-	11	0.968	-	22	1.756	-	8	0.639	-	-	-	-	8	0.639	
RLR RD TAND 2RL (3895-00-243-6797)	A		-	-	-	0.035	4	0.141	0.048	4	0.191	0.048	1	0.048	-	-	-	0.048	1	0.048
<i>Secondary Distribution</i>																				
AF			-	-	-	4	0.141	-	4	0.191	-	1	0.048	-	-	-	-	1	0.048	
RLR VIB TYPE II (3895-01-071-5625)	A		-	-	-	0.150	25	3.750	0.148	15	2.226	0.148	4	0.592	-	-	-	0.148	4	0.592
<i>Secondary Distribution</i>																				
AF			-	-	-	25	3.750	-	15	2.226	-	4	0.592	-	-	-	-	4	0.592	
1500G WATER DISTR (3825-00-554-1808)	A		-	-	-	0.181	17	3.077	0.156	29	4.510	0.156	22	3.432	0.156	20	3.111	0.156	42	6.543
<i>Secondary Distribution</i>																				
AF			-	-	-	17	3.077	-	29	4.510	-	22	3.432	-	20	3.111	-	42	6.543	
TRAC IND IW-70 (2420-00-113-8984)	A		-	-	-	0.067	58	3.899	0.054	13	0.696	0.054	10	0.540	-	-	-	0.054	10	0.540
<i>Secondary Distribution</i>																				
AF			-	-	-	58	3.899	-	9	0.482	-	9	0.486	-	-	-	-	9	0.486	
AFNG			-	-	-	-	-	-	-	2	0.107	-	-	-	-	-	-	-	-	
AFR			-	-	-	-	-	-	-	2	0.107	-	1	0.054	-	-	-	-	1	0.054
DOZER T7 (2410-00-756-1161)	A		-	-	-	0.713	29	20.690	0.269	23	6.181	0.269	11	2.956	-	-	-	0.269	11	2.956
<i>Secondary Distribution</i>																				
AF			-	-	-	28	19.977	-	23	6.181	-	11	2.956	-	-	-	-	11	2.956	
AFNG			-	-	-	1	0.713	-	-	-	-	-	-	-	-	-	-	-	-	
GRADER, SIZE V, TYPE III (3805-01-337-4624)	A		-	-	-	0.312	32	9.984	0.203	21	4.263	0.203	6	1.218	0.203	10	2.031	0.203	16	3.249
<i>Secondary Distribution</i>																				
AF			-	-	-	32	9.984	-	21	4.263	-	6	1.218	-	10	2.031	-	16	3.249	

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6						P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles						Aggregated Items Title: Base Maintenance Support Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
DISTRIBUTOR WATER TRAILER (3825-00-570-3417)	A		-	-	-	-	-	-	-	-	0.164	1	0.164	-	-	-	0.164	1	0.164	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-		1	0.164		-	-		1	0.164	
SEWER TRK TANDEM AXLE (2320-01-500-5501)	A		-	-	0.415	3	1.245	0.423	2	0.846	0.423	2	0.846	-	-	-	0.423	2	0.846	
<i>Secondary Distribution</i>																				
AF			-	-		3	1.245		2	0.846		2	0.846		-	-		2	0.846	
WATER WAGON (3825-01-539-6813)	A		-	-	0.112	11	1.237	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-		11	1.237		-	-		-	-		-	-		-	-	
TLR DITCHING MACH (2330-01-079-4053)	A		-	-	0.017	3	0.052	0.021	5	0.105	0.021	5	0.105	-	-	-	0.021	5	0.105	
<i>Secondary Distribution</i>																				
AF			-	-		3	0.052		3	0.063		2	0.042		-	-		2	0.042	
AFNG			-	-		-	-		1	0.021		3	0.063		-	-		3	0.063	
AFR			-	-		-	-		1	0.021		-	-		-	-		-	-	
WATER DISTR TRUCK (3825-01-539-3764)	A		-	-	-	-	-	-	-	-	0.496	1	0.496	-	-	-	0.496	1	0.496	
<i>Secondary Distribution</i>																				
AF			-	-		-	-		-	-		1	0.496		-	-		1	0.496	
7.5 T CRANE (3810-01-106-3991)	A		-	-	-	-	-	0.307	23	7.050	0.219	4	0.874	-	-	-	0.219	4	0.874	
<i>Secondary Distribution</i>																				
AF			-	-		-	-		23	7.050		4	0.874		-	-		4	0.874	
TLR MANHOLE CLNR (2330-00-307-3295)	A		-	-	0.055	5	0.275	0.105	2	0.209	0.105	2	0.209	-	-	-	0.105	2	0.209	
<i>Secondary Distribution</i>																				
AF			-	-		5	0.275		2	0.209		2	0.209		-	-		2	0.209	
TRUCK, DUMP (2320-01-344-9282)	A		-	-	0.139	86	11.976	0.143	22	3.153	0.143	15	2.145	0.143	20	2.866	0.143	35	5.011	
<i>Secondary Distribution</i>																				
AF			-	-		86	11.976		22	3.153		12	1.716		20	2.866		32	4.582	
AFNG			-	-		-	-		-	-		2	0.286		-	-		2	0.286	
AFR			-	-		-	-		-	-		1	0.143		-	-		1	0.143	

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6						P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles						Aggregated Items Title: Base Maintenance Support Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
DRIER-MXR, BIT CONCR (3895-01-624-1958)	A		-	-	-	-	-	-	0.155	20	3.100	0.148	9	1.332	-	-	-	0.148	9	1.332
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-		20	3.100		9	1.332		-	-		9	1.332
2000 GAL WATER TANK (3825-01-624-1963)	A		-	-	-	0.067	11	0.734	0.066	24	1.591	0.070	12	0.840	0.069	20	1.390	0.070	32	2.230
<i>Secondary Distribution</i>																				
AF			-	-	-		11	0.734		24	1.591		12	0.840		20	1.390		32	2.230
MIXER, BITUMINOUS MA (3895-01-627-1341)	A		-	-	-	0.205	11	2.256	0.203	10	2.033	0.205	15	3.082	-	-	-	0.205	15	3.082
<i>Secondary Distribution</i>																				
AF			-	-	-		11	2.256		10	2.033		15	3.082		-	-		15	3.082
GRADER SZ 6 (3805-01-373-5314)	A		-	-	-	-	-	-	-	-	-	0.277	1	0.277	-	-	-	0.277	1	0.277
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		1	0.277		-	-		1	0.277
MIXER CON TRLR MTD (3895-01-005-5422)	A		-	-	-	0.286	10	2.861	-	-	-	0.286	2	0.572	-	-	-	0.286	2	0.572
<i>Secondary Distribution</i>																				
AF			-	-	-		9	2.575		-	-		2	0.572		-	-		2	0.572
AFNG			-	-	-		1	0.286		-	-		-	-		-	-		-	-
COMPACT EXCAVATOR CRAWLER (3805-01-565-8767)	A		-	-	-	0.053	4	0.210	0.056	1	0.056	0.056	2	0.112	-	-	-	0.056	2	0.112
<i>Secondary Distribution</i>																				
AF			-	-	-		4	0.210		1	0.056		2	0.112		-	-		2	0.112
SCRAPPER MOTORIZED 18CY (3805-00-234-9778)	A		-	-	-	0.704	4	2.815	0.759	2	1.518	0.759	2	1.518	-	-	-	0.759	2	1.518
<i>Secondary Distribution</i>																				
AF			-	-	-		4	2.815		2	1.518		2	1.518		-	-		2	1.518
CRUSH-SCREEN 150TH (3820-00-060-1841)	A		-	-	-	-	-	-	-	-	-	1.580	2	3.159	-	-	-	1.580	2	3.159
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-		2	3.159		-	-		2	3.159
T7 DOZER (2410-00-816-5091)	A		-	-	-	0.488	5	2.441	0.532	3	1.597	-	-	-	-	-	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6 **P-1 Line Item Number / Title:** 826990 / Base Maintenance Support Vehicles **Aggregated Items Title:** Base Maintenance Support Vehicles

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
<i>Secondary Distribution</i>																					
AF				-	-		5	2.441		2	1.065		-	-		-	-		-		
AFNG				-	-		-	-		1	0.532		-	-		-	-		-		
LOADER SKID STEER TRACK MTD (3805-00-278-1245)	A		-	-	-	0.062	5	0.309	0.075	3	0.225	0.075	4	0.300				0.075	4	0.300	
<i>Secondary Distribution</i>																					
AF				-	-		5	0.309		3	0.225		4	0.300					4	0.300	
CR WHLD HYD 15T (3810-00-329-4154)	A		-	-	-	0.343	4	1.372	0.308	1	0.308										
<i>Secondary Distribution</i>																					
AF				-	-		4	1.372		1	0.308		-	-		-	-		-		
SEWER TRK SINGLE AXLE (2320-01-501-8524)	A		-	-	-							0.403	1	0.403				0.403	1	0.403	
<i>Secondary Distribution</i>																					
AF				-	-								1	0.403					1	0.403	
CRANE HYDRAULIC 15T (3810-01-485-8693)	A		-	-	-							0.230	1	0.230				0.230	1	0.230	
<i>Secondary Distribution</i>																					
AF				-	-								1	0.230					1	0.230	
CRANE TRK MTD 28 TON (3810-001-506-6637)	A		-	-	-								0.443	1	0.443				0.443	1	0.443
<i>Secondary Distribution</i>																					
AF				-	-								1	0.443					1	0.443	
PAVEMENT PROFILER (3895-01-108-3606)	A		-	-	-								0.624	1	0.624				0.624	1	0.624
<i>Secondary Distribution</i>																					
AF				-	-								1	0.624					1	0.624	
TRUCK, WASTE WATER TANKER (2320-01-627-2536)	A		-	-	-	0.336	9	3.020				0.336	1	0.336				0.336	1	0.336	
<i>Secondary Distribution</i>																					
AF				-	-		8	2.684					1	0.336					1	0.336	
AFNG				-	-		1	0.336													
ROLLER MOTORIZED (3895-01-603-8654)	A		-	-	-	0.029	11	0.319	0.029	20	0.575										
<i>Secondary Distribution</i>																					

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6						P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles						Aggregated Items Title: Base Maintenance Support Vehicles								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF				-	-		11	0.319		20	0.575		-	-		-	-		-	-
DUMP TRUCK 6X4 55K GVW (2320-01-058-5725)	A		-	-	-	0.134	16	2.144	0.132	17	2.250	0.132	1	0.132	-	-	-	0.132	1	0.132
<i>Secondary Distribution</i>																				
AF				-	-		15	2.010		17	2.250		1	0.132		-	-		1	0.132
AFNG				-	-		1	0.134		-	-		-	-		-	-		-	-
EXCAVATOR CRAWLER MTD (3805-01-058-3562)	A		-	-	-	0.178	5	0.889	0.250	5	1.250	0.250	1	0.250	-	-	-	0.250	1	0.250
<i>Secondary Distribution</i>																				
AF				-	-		5	0.889		5	1.250		1	0.250		-	-		1	0.250
COMPACT TRACK LOADER (3805-01-603-8653)	A		-	-	-	-	-	-	0.126	25	3.150	0.127	8	1.016	0.127	25	3.170	0.127	33	4.186
<i>Secondary Distribution</i>																				
AF				-	-		-	-		25	3.150		8	1.016		25	3.170		33	4.186
COMPACT SHEEPS FOOT (3805-01-359-7626)	A		-	-	-	-	-	-	0.461	2	0.921	0.461	1	0.461	-	-	-	0.461	1	0.461
<i>Secondary Distribution</i>																				
AF				-	-		-	-		2	0.921		1	0.461		-	-		1	0.461
DRILL ROCK (3820-00-00-050-9964)	A		-	-	-	0.476	5	2.381	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		5	2.381		-	-		-	-		-	-		-	-
TRAC WHLD IND 4WD 85HP (2420-01-205-8579)	A		-	-	-	-	-	-	-	-	-	0.076	2	0.152	-	-	-	0.076	2	0.152
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		2	0.152		-	-		2	0.152
50T CRANE (3810-01-079-8358)	A		-	-	-	-	-	-	0.439	9	3.947	0.434	1	0.434	-	-	-	0.434	1	0.434
<i>Secondary Distribution</i>																				
AF				-	-		-	-		9	3.947		1	0.434		-	-		1	0.434
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	-	0.017	-	-	0.012	-	-	0.011	-	-	0.006	-	-	0.017
<i>Secondary Distribution</i>																				
AF				-	-		-	0.017	-	-	0.012	-	-	0.011	-	-	0.006	-	-	0.017
Subtotal: Uncategorized			-	-	-	-	-	114.603	-	-	70.013	-	-	43.095	-	-	20.653	-	-	63.748
Total			-	-	-	-	-	114.603	-	-	70.013	-	-	43.095	-	-	20.653	-	-	63.748

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 02 / 6	P-1 Line Item Number / Title: 826990 / Base Maintenance Support Vehicles	Aggregated Items Title: Base Maintenance Support Vehicles

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

Remarks:
Based on AF Mission changes and/or AF Mission priorities, NSNs and/or quantities may change during year of execution.

UNIT COSTS FOR FY21 ARE SUBJECT TO CHANGE.

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies and studies.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) **P-1 Line Item Number / Title:** 831010 / Comsec Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207448F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	104.410	81.461	54.864	-	54.864	56.740	57.731	58.763	59.839	-	473.808
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	104.410	81.461	54.864	-	54.864	56.740	57.731	58.763	59.839	-	473.808
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	104.410	81.461	54.864	-	54.864	56.740	57.731	58.763	59.839	-	473.808

(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:

These programs support Cyberspace Activities.

PE 0208064F AF Operational HQ-Cyber/Cyberspace Command and Control Mission System (C3MS)

Provides the AFCYBER Commander with hardware and software tools necessary to effectively and efficiently plan, monitor, and execute missions in the cyber domain. This includes development and dissemination of Cyberspace Tasking Orders to ensure commander's intent is supported through the application of cyber forces using the latest intelligence. C3MS provides a common operational picture to maintain cyberspace threat activities and integrates cyberspace indications and warnings, analysis, and other actionable intelligence products into overall situational awareness, planning, and execution. Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (Comsec) to WSC 834320 C3 Countermeasures for clarity in reporting. Funding in this exhibit contained in PE 0208064F

PE 0208087F DISTRIBUTED CYBER WARFARE OPERATIONS (DCWO)

Provides for the support and deployment of cyberspace solutions in the form of material and non-material cyberspace network attack tools and exploits for DCWO portfolio to include but not limited to AF Offensive Cyberspace Operations (OCO) units, the Cyber Mission Forces, Combatant Commands (COCOMs), and other authorized agencies. Funding procures specialized hardware/software necessary for real time deployment, exploit identification, tool development, and testing in an environment simulating real-world operational infrastructures and enclaves. Funding also is used for the procurement of the AF cyber test and training range, used for workforce training by the 318th Cyber Operations Group under the 67th Cyber Wing. Beginning in Fiscal Year 2021, procurement funding realigned to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS (DCO)

Provides defensive counter cyberspace capability that protects the AFNet and DoD network enclaves, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction. 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. Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (Comsec) and WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec)		P-1 Line Item Number / Title: 831010 / Comsec Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207448F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>PE 0303135F PUBLIC KEY INFRASTRUCTURE (PKI)</p> <p>PKI provides identity management (IDM) services as part of the DOD Identity Credential and Access Management (ICAM) program to support warfighter requirements. Air Force IDM programs align with DoD ICAM efforts and support DoD ICAM Roadmap and Strategic Plan and the AF ICAM Technology Roadmap. PKI provides the fundamental framework implemented within DoD to ensure information system's security. It provides the capability to attach digital signatures to electronic documents for IDM, to encrypt and decrypt electronic documents for secure transmission, and to support physical and logical access control solutions. PKI-enabled applications afford confidentiality and authentication services to communications and/or network transactions, as well as verification of the data integrity and non-repudiation of those transactions. PKI is one of many security solutions used to protect information and provide attributes enabling authorization access to critical resources in the Air Force Information Networks (AFIN) and used concurrently with other solutions. PE also includes Air Force Directory Service (AFDS), which is the single source of consolidated authoritative IDM enabling secure smart card logon to AF clients and applications. AFDS ensures that AF user identities are common and synchronized across directories and information stores of various networks, systems, and applications. AFDS eliminates the disparity of maintaining stove-piped systems and using directory technology, alleviates latency associated with the sharing/replication of identity data attributes. AFDS supports delivery of an enterprise security service and backbone for AF networks, by providing AF user credentials to the AF Network Enterprise and AF system applications.</p> <p>PE 0303140F INFORMATION SYSTEMS SECURITY PROGRAM (ISSP):</p> <p>This program funds procurement of Communications Security (COMSEC) equipment, ancillary encryption/decryption devices, and related equipment to ensure confidentiality, integrity, and availability and enable the secure transport of information. ISSP delivers on rising national, DoD, and AF priorities to address cybersecurity threats and increasing warfighter dependence on cyberspace. AF and DoD require the capability to collect, process, and disseminate an uninterrupted flow of information while denying an adversary the ability to intercept, collect, destroy, interpret, or manipulate our information flows. Secure communication allows the DoD to achieve and maintain decision superiority, the key to successful application of the military instrument of national power in modern, high-tempo, full spectrum operations. AF COMSEC equipment protects information such as, warfighter positions, mission planning, target strikes, commander's orders, intelligence, force strength, and force readiness. This COMSEC program ensures adversaries cannot interpret, manipulate, or destroy information. When an adversary is capable of interpretation, manipulation, or destruction of the information used by the warfighter, DoD military forces may suffer devastating mission degradation that can result in loss of life and resources and/or exceptionally grave damage to national security. The COMSEC program includes equipment upgrades and replacements which incorporate the best technologies mandated to provide mission critical warfighter secure voice and data communications in tactical, strategic, and network applications for our globally-deployed COMSEC crypto assets supporting both AF and DoD missions. Details of the assets are included in each section's narrative.</p> <p>Under Cryptographic Modernization 2 (CM2) effort - IFF Mode 5: Produce modified IFF cryptographic components. The permanent modification of these devices are required to address produce-ability and algorithm re-programmability mandated by the National Security Agency (NSA) and the 2019 Chairman of the Joint Chiefs of Staff Notice (CJCSN) 6510</p> <p>Funding for this exhibit contained in PE 0208064F; PE 0208087F; PE 0208088F; PE 0303135F; PE 0303140F.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec) **P-1 Line Item Number / Title:** 831010 / Comsec Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207448F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	OPERATIONAL HQ - CYBER		B		- / -	- / 11.705	- / 5.113	- / 0.000	- / -	- / 0.000
P-40a	Distributed Cyber Warfare Operations				- / -	- / 0.070	- / 2.790	- / 0.000	- / -	- / 0.000
P-5	AF Defensive Cyberspace Operations	P-5a	A		- / -	- / 32.465	- / 16.796	- / 0.000	- / -	- / 0.000
P-5	Public Key Infrastructure (PKI)		A		- / -	- / 4.165	- / 4.160	- / 4.230	- / -	- / 4.230
P-5	Information Systems Security Program	P-5a	A		- / -	- / 56.005	- / 52.602	- / 50.634	- / -	- / 50.634
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 104.410	- / 81.461	- / 54.864	- / -	- / 54.864

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

These programs support Cyberspace Activities.

PE 0208064F AIR FORCE Operational HQ-Cyber/Cyberspace Command and Control Mission System (C3MS)

1. Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (Comsec) to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0208087F DISTRIBUTED CYBER WARFARE OPERATIONS (DCWO)

1. Funding will procure additional instances of platforms, accesses, and payloads in the DCWO portfolio. Some aspects of the effort are classified and will be provided on a need to know basis. For further information please contact AFLCMC/HNCO, 210-925-6614. Beginning in Fiscal Year 2021, procurement funding realigned to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS

1. CYBERSPACE VULNERABILITY ASSESSMENT /HUNTER (CVA/H): Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (Comsec) to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0303135F PUBLIC KEY INFRASTRUCTURE (PKI):

1. EVOLUTIONARY PKI END USER EQUIPMENT: PKI provides identity management (IDM) services as part of the DOD Identity Credential and Access Management (ICAM) program to support warfighter requirements. Air Force IDM programs align with DoD ICAM efforts and support DoD ICAM Roadmap and Strategic Plan and the AF ICAM Technology Roadmap. PKI provides the fundamental framework and services implemented within DoD to ensure information systems security. It provides the capability to attach digital signatures to electronic documents for IDM, to encrypt and decrypt electronic documents for secure transmission, and to support physical and logical access control solutions. PKI-enabled applications afford confidentiality and authentication services to communications and/or network transactions, as well as verification of the data integrity and non-repudiation of those transactions. PKI is one of many security solutions used to protect information and provide attributes enabling authorization access to critical resources in the Air Force Information Networks (AFIN) and is used concurrently with other solutions. FY21 funding supports several different requirement areas to procure infrastructure equipment for the field in support of AFIN, PKI, Evolutionary PKI End User Equipment to include multifactor authentication technologies and authorization services, Less Than Medium Assurance (LTMA) capabilities and services, cloud/mobile support, claims-based authorization, attribute-based access control, federation to support mission partners, and non-person entities management. The current DoD PKI token (DoD Common

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec)		P-1 Line Item Number / Title: 831010 / Comsec Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207448F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Access Card (CAC)) is undergoing a gradual evolution towards a higher assurance token. Additionally, Homeland Security Presidential Directive-12 (HSPD-12) mandates a common identification card across the Federal Government. Based on the HSPD-12 requirements, the National Institute of Standards and Technology (NIST) developed Federal Information Processing Standard 201 (FIPS 201) which adds security requirements to the identification card.</p> <p>2. AIR FORCE DIRECTORY SERVICES (AFDS): AFDS is the single source of consolidated authoritative identity management data that enables secure smart card logon to Air Force clients and applications, facilitating global net-centric operations. As part of the DOD/AF Identity Credential Access Management (ICAM) section, AFDS capabilities include identity data directory (IDD), automated AFNET account provisioning and exchange contact information synchronization (ECIS) also known as GAL synchronization. AFDS ensures that AF user identities are common and synchronized across directories and information stores of various networks, systems, and applications. AFDS eliminates the disparity of maintaining stove-piped systems and using directory technology, alleviates latency associated with the sharing/replication of identity data attributes. AFDS supports delivery of an enterprise security service and backbone for AF networks (both in-garrison and tactical), by providing AF user credentials to the AF Network Enterprise and AF system applications. AFDS leverages and provides a core meta-directory service that "joins" and synchronizes personal identity data attributes from authoritative AF and DoD repositories for use by all AF systems and applications. Funds will support procurement of identity and credential solutions for mobile platforms and AF systems and applications to meet DoD and AF ICAM requirements as well as procure hardware, software and contractor supported upgrades. FY21 funds will procure hardware, software, and support upgrades.</p> <p>PE 0303140F INFORMATION SYSTEMS SECURITY PROGRAM:</p> <p>1. AIR AND GROUND (A&G) COMSEC PROGRAM: The Air and Ground COMSEC Program procures and supports a wide range of secure encryption products supporting AF, inter-service, and various DoD agency customers; and includes items approved under the National Security Agency (NSA) Commercial COMSEC Evaluation Program (CCEP) such as KIV-7M, Tactical Fast Lane (TACLANE), and other High Assurance Internet Protocol Encryptor (HAIPE) devices. The program includes equipment upgrades and replacements that incorporate state-of-the-art technologies for mission-critical warfighter secure voice and data communications. The program provides needed upgrades to encryption devices in FY21 to comply with NSA's Advanced Cryptographic Capabilities (ACC) directives. The program supports tactical, strategic, and network applications for globally deployed cryptologic assets supporting AF and DoD. Supported systems fall within AF Information Systems Security and Information Assurance arenas. Funding for this effort is in PE 0303140F.</p> <p>a. IN-LINE NETWORK ENCRYPTORS (INE): Previously called Network Encryption Systems. FY21 funding fields the new INE required to maintain the confidentiality, data integrity, and non-repudiation of classified communications. INEs are the mainstay for securing communications used in classified terrestrial and airborne communications networks. The new INEs feature robust data encryption improvements included in the HAIPE Interoperability Specification (HAIPE IS) as well as Internet Protocol (IP) Version 6 capability that will improve security and expand the bandwidth of USAF secure IP networks.</p> <p>b. LINK ENCRYPTION FAMILY (LEF): Provides for the replacement of the legacy LEF with new more secure crypto modernization compliant LEF devices. The LEF provides near real-time secure communications for national and command level decision making authorities up to TOP SECRET SCI. The new LEF devices include more robust encryption algorithms, as well as dual-channel, increased bandwidth capability, and reprogrammability. NSA has issued classified instructions regarding the use of specific LEF devices. No FY21 funding requested.</p> <p>c. AIR AND GROUND COMSEC CONSOLIDATED: Several requirements have been combined into one line: Secure Telephones, COMSEC Acquisition Reform (CAR), Peculiar Support Equipment, Secure Communications Voice/Data, Embedded Encryption Devices, and Telemetry Encryption Devices. FY21 funds procure secure voice/data equipment, latest generation Tier 3 devices (such as SKLs/NGLD-Ms/TKLs), DoD Type 1 COMSEC equipment and commercial cryptography products, testing and support equipment, embedded COMSEC modules, and telemetry devices and Link-16. The Air and Ground COMSEC line is an aggregation of numerous items. Each year the types and quantities of items utilized to meet requirements vary; an average unit cost is based on number/type of units planned for purchase.</p> <p>2. CRYPTOGRAPHIC MODERNIZATION (CM): The DoD is transforming its existing operational capabilities to realize a seamless Joint network of information and engagement grids that securely link sensors, command and control cells, and tactical units to support current and future warfighting capabilities. This includes cryptographic devices that are more robust, modular, scalable, capable, net-centric, and durable--allowing more effective and efficient performance including reduced inventory, expanded data rates, simplified upgrades, reduced costs, and ensured Global Information Grid (GIG) compatibility. The GIG requires a transformed cryptographic inventory. The DoD Cryptographic Modernization (CM) Initiative delivers that inventory, ensuring a strong security posture for national security and tactical communications systems by providing transparent cryptographic capabilities consistent with operational imperatives, NSA mandates, and mission environments. The future inventory will provide security devices that ease logistics, support Joint and coalition interoperability, enable network-centric and transparent key/equipment management, and allow effective future upgrades. These CM programs enable information dominance by developing and procuring communications security devices that deter and deny known and emerging threats, while accommodating significantly increased bandwidths and processing speeds, and without</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec)		P-1 Line Item Number / Title: 831010 / Comsec Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207448F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>increasing communication transient and information holding risk. Current CM programs will ensure modernized, secure communications capability to Vinson/ANDVT devices and miniaturized crypto for small unmanned systems. Current programs will replace/upgrade over 30,000 devices out of the Air Force's 245,000+ crypto devices and provided over 100,000 new devices where none were previously available. Other programs are undergoing development under the auspices of other lines in this PE in order to meet emerging COMSEC requirements for Key Management Infrastructure compatibility, as well as various enterprise-wide technological upgrades mandated under the NSA assessments and Policy #3-9 "Cryptographic Modernization Initiative Requirements for Type 1 Cryptographic Products". Funding for this effort is in PE 0303140F.</p> <p>a. IDENTIFICATION FRIEND OR FOE (IFF) MODE 5 CM: This program developed and is procuring devices to encrypt/decrypt IFF Mode 4 and Mode 5 interrogator and transponder operations. These devices, built to Air Traffic Control Radar Beacon System (ATCRBS), IFF, Mark XIIA, System (AIMS) 04-900 Cryptographic Interface Standard, are integrated into all airborne platforms and ground radar applications to provide critical, immediate tactical aircraft identification data to ground and airborne systems. Procurement of the two primary devices, KIV-77 and KIV-78 are being assessed annually in coordination with ACC CYSS/CYZ AF Crypto requirements office for any platform requirement changes that drive procurement actions.</p> <p>(1) KIV-78 DEVICES: No FY21 procurements are required.</p> <p>(2) KIV-77 DEVICES: No FY21 procurements are required.</p> <p>b. VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM): FY21 funds support the VACM program. VACM is an element within the AF CM Program. This program developed and is procuring devices designed to replace the legacy capability on VINSON/ANDVT secure voice communications on aircraft, ships, and ground fixed and mobile platforms including critical Nuclear Command and Control (NC2) and other Top Secret and Secret networks (Devices: KY-57/58, KY-99/100 and USC-43). The VACM Embedded Project upgrades the Baseband Input/Output (BBIO) module as a permanent modification of the ARC-234. The VACM Remote Control Unit (RCU) project is a permanent sustainment modification effort that will augment and replace legacy RCU inventory.</p> <p>(1) VACM COMPONENTS (ARC-234): FY21 funding supports the VACM Embedded Project. It was established to modernize cryptographic devices that are integrated within various VINSON/ANDVT radios. The BBIO module performs COMSEC functions for the ARC-234. The Permanent Sustainment Modification of the ARC-234 will retain Embedded COMSEC capability by upgrading the BBIO module with reprogrammable hardware and modern crypto algorithms. The upgraded BBIOs will be installed/modified into the ARC-234 radios.</p> <p>(2) VACM DEVICES: FY21 funding procures modernized secure voice communication devices. The production line will replace five legacy crypto device types on critical national leadership networks including airborne, ground and mobile platforms.</p> <p>(3) Remote Control Unit (RCU): FY21 funding supports the RCU, a permanent sustainment modification project that will provide a form fit replacement and backward capability with legacy devices. This effort fixes existing sustainment challenges.</p> <p>c. MISSILE ELECTRONIC ENCRYPTION DEVICE (MEED): FY21 funding will procure modified Missile Entry Control System (MECS) KL-90 devices used encrypt/decrypt personnel authentication and lock combination transmission to ensure only authorized personnel enter into Intercontinental Ballistic Missile (ICBM) control centers and facilities. This effort will field the MEED equipment in compliance with current NSA information assurance (IA) security design guidance.</p> <p>d. MINI CRYPTO (MC): FY21 funding supports the MC program in the procurement of a Tactical Key Management (TKM) miniaturized cryptographic solution to protect Secret and Below (SaB) Command and Control (C2) and mission data for Size, Weight, and Power (SWaP) constrained small form factor platforms and unmanned systems/sensors--many of which currently have no cryptographic capability and transmit in the clear. MC's Tactical Key Management (TKM) solution uses unclassified algorithms, can perform all aspects of key management, and can self-generate its own key. This unique combination enables "lose-able" tactical crypto to protect lives and valuable assets, removing the requirement for pre-placed key material, reducing the logistical/operational burden on tactical users, while allowing the ability to add/remove users as the tactical situation dictates.</p> <p>FY21 Plans: (1) Complete Full Rate Production (FRP) option activities</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 1: Comm Security Equipment(Comsec)		P-1 Line Item Number / Title: 831010 / Comsec Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207448F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>(2) Provide remaining FRP units to MC Users (3) Provide support to MC Users as they integrate MC into their platforms (4) Prepare IDIQ follow-on contract in support of additional User MC quantity requirements</p> <p>e. PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY21 program management administration funding supports management with engineering and technical expertise in support of procurement activities.</p> <p>f. REMOTE REKEY (RRK) (CI-33) DEVICES: The RRK System requires technology insertion and security enhancement activities to meet DoD, NSA and AF security and sustainment mandates. The first requirement of this effort is an operating system update to the RRK workstation. This update from Standard Desktop Configuration (SDC) 3.X (Microsoft Windows 7) to SDC 5.X (Microsoft Windows 10), will require further enhancements of the custom commercial software to identify with the new Win 10 operating system. The second element of this requirement is to eliminate the static link in the software to allow for compatibility with any version of a KG-175D, adding flexibility to host next generation Inline Network Encryptor. No FY21 funding requested.</p> <p>3. AIR FORCE ELECTRONIC KEY MANAGEMENT SYSTEM (AF EKMS): AF EKMS is now referenced as "Tier 3 devices" under the AIR AND GROUND (A&G) COMSEC PROGRAM, in the AIR AND GROUND COMSEC CONSOLIDATED section.</p> <p>4. AIR FORCE KEY MANAGEMENT ENTERPRISE (AF KME): The DoD has directed replacement of the legacy Air Force Electronic Key Management System (AF EKMS) portion of the AF KME with the DoD KMI. The AF KMI transition activity procures and deploys the DoD KMI equipment and software within the AF to provide mission critical COMSEC support for all AF mission and platforms implementing the core capability for the AF's future KME. The AF KMI transition activity procures KMI connectivity, key management and cryptographic unique/certified products (Tier 2) to replace legacy AF EKMS equipment per NSA mandates and to field KMI-enabled products that have been under previous years DOD development. Funding for this effort is in program element 0303140F.</p> <p>a. KMI Hardware (Tier 2): FY21 funding procures: KMI Management Clients (MGCs) that provide the user interface; Advanced Key Processors (AKPs) that provide the cryptographic capability to interact with the DoD KMI.</p>		

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: OPERATIONAL HQ - CYBER

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	11.705	5.113	0.000	-	0.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	11.705	5.113	0.000	-	0.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	11.705	5.113	0.000	-	0.000

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

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

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - OPERATIONAL HQ - CYBER Cost																		
Recurring Cost																		
HARDWARE AND COMMERCIAL OFF THE SHELF SOFTWARE	-	-	-	10.637	1	10.637	5.113	1	5.113	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	10.637	-	-	5.113	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
TRAINING AND FIELDING	-	-	-	-	-	1.068	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	1.068	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - OPERATIONAL HQ - CYBER Cost</i>	-	-	-	-	-	11.705	-	-	5.113	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	11.705	-	-	5.113	-	-	0.000	-	-	-	-	-	0.000

Remarks:

Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (Comsec) to WSC 834320 C3 Countermeasures for clarity in reporting.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Aggregated Items Title: Distributed Cyber Warfare Operations
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Cyber Workforce Training PE 0208087F																				
1. 39 IOS FTU Expansion Equipment	A		-	-	-	0.070	1	0.070	2.790	1	2.790	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Cyber Workforce Training PE 0208087F			-	-	-	-	-	0.070	-	-	2.790	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.070	-	-	2.790	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:
 Funding supports Cyber Workforce Training requirements.
 - Starting in FY21, procurement funding realigned to WSC 834320 C3 Countermeasures for clarity of reporting.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: AF Defensive Cyberspace Operations

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	32.465	16.796	0.000	-	0.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	32.465	16.796	0.000	-	0.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	32.465	16.796	0.000	-	0.000

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - 0208088F COMSEC Cost																		
Recurring Cost																		
1. Cyberspace Vulnerability Assessment/Hunter ^(t)	-	-	-	0.051	448	23.063	0.052	58	2.997	-	-	-	-	-	-	-	-	-
2. Computer Security Assistance Program (CSAP) Countermeasures	-	-	-	0.879	5	4.393	0.894	5	4.469	-	-	0.000	-	-	-	-	-	0.000
3. Cyberspace Defense Analysis	-	-	-	1.259	1	1.259	1.698	1	1.698	-	-	0.000	-	-	-	-	-	0.000
4. WSCR ^(t)	-	-	-	0.025	150	3.750	0.025	300	7.632	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	32.465	-	-	16.796	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Hardware - 0208088F COMSEC Cost</i>	-	-	-	-	-	32.465	-	-	16.796	-	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Cost	-	-	-	-	-	32.465	-	-	16.796	-	-	0.000	-	-	-	-	-	0.000

Remarks:

Note: P-5 change in how quantities are reported. Previously reported by number of CPTs fielded vice number of subsystems (MIP, DIP, GIP, IOP-FAK). Change is to better articulate the quantities of the CVA/H weapon system being procured.

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: AF Defensive Cyberspace Operations
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1. Cyberspace Vulnerability Assessment/Hunter		2019	Multiple / Various	Various	CPSG	Jul 2019	Sep 2019	448	0.051	Y		
1. Cyberspace Vulnerability Assessment/Hunter		2020	Multiple / Various	Various	CPSG	Jul 2019	Sep 2020	58	0.052	Y		
4. WSCR		2019	Multiple / Various	Various	CPSG	Jan 2019	Sep 2019	150	0.025	Y		
4. WSCR		2020	Multiple / Various	Various	CPSG	Jan 2020	Sep 2020	300	0.025	Y		

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: Public Key Infrastructure (PKI)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	4.165	4.160	4.230	-	4.230
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	4.165	4.160	4.230	-	4.230
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	4.165	4.160	4.230	-	4.230

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

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

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - 0303135F COMSEC Cost																		
Recurring Cost																		
1. EVOLUTIONARY PKI END USER EQUIPMENT	-	-	-	0.000	69,740	3.462	0.000	69,398	3.445	0.000	20,000	3.233	-	-	-	0.000	20,000	3.233
2. AIR FORCE DIRECTORY SERVICES	-	-	-	0.141	5	0.703	0.143	5	0.715	0.145	5	0.727	-	-	-	0.145	5	0.727
3. LESS THAN MEDIUM ASSURANCE PKI	-	-	-	-	-	-	-	-	-	0.027	10	0.270	-	-	-	0.027	10	0.270
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	4.165	-	-	4.160	-	-	4.230	-	-	-	-	-	4.230
<i>Subtotal: Hardware - 0303135F COMSEC Cost</i>	-	-	-	-	-	4.165	-	-	4.160	-	-	4.230	-	-	-	-	-	4.230
Gross/Weapon System Cost	-	-	-	-	-	4.165	-	-	4.160	-	-	4.230	-	-	-	-	-	4.230

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: Information Systems Security Program

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	56.005	52.602	50.634	-	50.634
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	56.005	52.602	50.634	-	50.634
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	56.005	52.602	50.634	-	50.634

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)

Hardware - 1. AIR and GROUND COMSEC (PE 0303140F) Cost

Recurring Cost																		
a. IN-LINE NETWORK ENCRYPTORS ^(f)	-	-	-	0.016	678	11.029	0.016	168	2.700	0.016	914	14.563	-	-	-	0.016	914	14.563
b. LINK ENCRYPTION FAMILY	-	-	-	0.009	387	3.479	-	-	-	-	-	-	-	-	-	-	-	-
c. AIR AND GROUND CONSOLIDATED ^(f)	-	-	-	0.003	3,077	9.232	0.003	931	2.794	0.003	2,985	8.954	-	-	-	0.003	2,985	8.954
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	23.740	-	-	5.494	-	-	23.517	-	-	-	-	-	23.517
<i>Subtotal: Hardware - 1. AIR and GROUND COMSEC (PE 0303140F) Cost</i>	-	-	-	-	-	23.740	-	-	5.494	-	-	23.517	-	-	-	-	-	23.517

Hardware - 2. CRYPTOGRAPHIC MODERNIZATION (PE 0303140F) Cost

Recurring Cost																		
a (1). KIV-78	-	-	-	0.008	25	0.199	0.008	25	0.203	0.008	25	0.207	-	-	-	0.008	25	0.207
b. (1) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) COMPONENTS (ARC-234) INSTALLATION	-	-	-	-	-	-	0.006	278	1.673	0.006	83	0.500	-	-	-	0.006	83	0.500
b. (2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES ^(f)	-	-	-	0.011	1,132	12.454	0.011	1,700	18.707	0.011	1,831	20.141	-	-	-	0.011	1,831	20.141

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1						P-1 Line Item Number / Title: 831010 / Comsec Equipment						Item Number / Title [DODIC]: Information Systems Security Program					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
c. MISSILE ELECTRONIC ENCRYPTION DEVICES (MEED)	-	-	-	-	-	0.139	0.010	1,803	18.038	0.010	92	0.922	-	-	-	0.010	92	0.922
d. MINI CRYPTO	-	-	-	0.002	3,538	6.106	0.001	1,680	1.680	0.001	155	0.155	-	-	-	0.001	155	0.155
e. PROGRAM MANAGEMENT (PMA)	-	-	-	-	-	2.477	-	-	2.502	-	-	2.790	-	-	-	-	-	2.790
b. (3) REMOTE CONTROL UNIT (RCU)	-	-	-	-	-	-	0.008	210	1.682	0.008	125	1.000	-	-	-	0.008	125	1.000
f. REMOTE REKEY (RRK) (CI-33)	-	-	-	1.570	1	1.570	1.246	1	1.246	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	22.945	-	-	45.731	-	-	25.715	-	-	-	-	-	25.715
<i>Subtotal: Hardware - 2. CRYPTOGRAPHIC MODERNIZATION (PE 0303140F) Cost</i>	-	-	-	-	-	22.945	-	-	45.731	-	-	25.715	-	-	-	-	-	25.715
<i>Hardware - 4. AF KMI (PE 0303140F) Cost</i>																		
<i>Recurring Cost</i>																		
a. KMI HARDWARE	-	-	-	0.043	217	9.320	0.038	36	1.377	0.033	42	1.402	-	-	-	0.033	42	1.402
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	9.320	-	-	1.377	-	-	1.402	-	-	-	-	-	1.402
<i>Subtotal: Hardware - 4. AF KMI (PE 0303140F) Cost</i>	-	-	-	-	-	9.320	-	-	1.377	-	-	1.402	-	-	-	-	-	1.402
Gross/Weapon System Cost	-	-	-	-	-	56.005	-	-	52.602	-	-	50.634	-	-	-	-	-	50.634

Remarks:

COMSEC Equipment is procured as a centrally managed item using 3080. Various units and difference price per unit. Average Unit Cost used.

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 1	P-1 Line Item Number / Title: 831010 / Comsec Equipment	Item Number / Title [DODIC]: Information Systems Security Program
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
a. IN-LINE NETWORK ENCRYPTORS		2019	General Dynamics / Various	Various	NSA	Nov 2018	Jan 2019	678	0.016	Y		
a. IN-LINE NETWORK ENCRYPTORS		2020	General Dynamics / Various	Various	NSA	Nov 2019	Jan 2020	168	0.016	Y		
a. IN-LINE NETWORK ENCRYPTORS		2021	General Dynamics / Various	Various	NSA	Nov 2020	Jan 2021	914	0.016	Y		
c. AIR AND GROUND CONSOLIDATED		2019	Raytheon / Florida	Various	CPSG	Mar 2019	Apr 2020	3,077	0.003	Y		
c. AIR AND GROUND CONSOLIDATED		2020	Raytheon / Florida	Various	CPSG	Mar 2020	Apr 2021	931	0.003	Y		
c. AIR AND GROUND CONSOLIDATED		2021	Raytheon / Florida	Various	CPSG	Mar 2021	Apr 2022	2,985	0.003	Y		
b. (2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES		2019	Raytheon / Florida	Various	NSA	Mar 2019	Apr 2020	1,132	0.011	Y		
b. (2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES		2020	Raytheon / Florida	Various	NSA	Mar 2020	Apr 2021	1,700	0.011	Y		
b. (2) VINSON/ANDVT CRYPTOGRAPHIC MODERNIZATION (VACM) DEVICES		2021	Raytheon / Florida	Various	NSA	Mar 2021	Apr 2022	1,831	0.011	Y		

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
 832050 / International Intel Tech & Architectures

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305600F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	8.290	11.386	9.283	-	9.283	10.874	11.152	11.353	10.621	-	72.959
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	8.290	11.386	9.283	-	9.283	10.874	11.152	11.353	10.621	-	72.959
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	8.290	11.386	9.283	-	9.283	10.874	11.152	11.353	10.621	-	72.959

(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:

International Intelligence Technology and Architectures oversees, manages, and provides the United States (US) component of the multi-national Battlefield Information Collection and Exploitation System (BICES) with a collaborative environment and intelligence sharing enterprise required for processing and disseminating critical intelligence information between and among US, North Atlantic Treaty Organization (NATO), allied and coalition forces. The US BICES program procures and maintains a standing intelligence information sharing capability across Department of Defense (DoD), Combat Support Agencies (CSA), and multiple Combatant Commands (CCMD) for the Office of the Under Secretary of Defense, Intelligence (OUSDI). At the request of OUSDI, US BICES is extended beyond NATO nations into all CCMDs and is known as US BICES Extended (US BICES-X). US BICES provides an "enduring" US and Coalition interoperable intelligence sharing multi-level secure technical architecture utilizing releasable elements of the Defense Intelligence Information Enterprise (DIIE) framework and functions to support the full spectrum of intelligence operations and dissemination throughout the DoD community. Also, it enables instantiation of US BICES/BICES-X as the intelligence contribution to the Mission Partner Environment (MPE).

Funding for this exhibit contained in PE 0305600F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 832050 / International Intel Tech & Architectures
Equip / BSA 2: Intelligence Programs

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305600F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	International Intel Tech & Architectures	P-5a	B		- / 0.000	- / 8.290	- / 11.386	- / 9.283	- / -	- / 9.283
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 8.290	- / 11.386	- / 9.283	- / -	- / 9.283

*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 response to CCMD requirements, funding for US BICES/US BICES-X capabilities implements OUSD(I) global intelligence sharing arrangements. FY2021 funding procures hardware and software to support the expansion of the US BICES-X coalition information sharing capabilities for US Combatant Commanders to meet theater strategy worldwide. Specifically funding will support J2 (Joint Intelligence) network requirements to exchange intelligence information with bi-lateral, multi-lateral, and NATO partners. BICES Capability Office will deliver procedures, workstations, switches, servers, cross-domain solutions, communications infrastructure, video teleconference suites, network equipment, storage and backup, encryption equipment, software licenses, infrastructure, deployable suites, Trusted Network Environment (TNE) equipment and software communications. Variations in quantity and unit price reflect planned capital investment.

Other Procurement funding will:

- Provide and support extension of the US BICES multilateral, and bilateral intelligence information sharing capabilities within each of the Combatant Commands via expanded communications, information technology systems, integrated wide area and meshed networking, deployable containers/elements, and advanced Joint Intelligence Operations Center (JIOC)-IT/Distributed Common Ground/Surface Systems (DCGS) releasable analytical applications.
- Procure the hardware and software needed to establish US BICES-X capabilities as a core infrastructure and enterprise for the intelligence component of the DoD MPE.
- Continue support to the (US as framework nation) US/Coalition Special Operations Forces (SOF) supporting NATO and worldwide intelligence needs for the Global Pursuit mission and the US contribution to the NATO Intelligence Fusion Center at the Joint Analysis Center, United Kingdom (UK).
- Procure work stations, enterprise hardware and software, security accreditation, and network connections supporting strategic, operational and forward deployed warfighting forces in multiple theaters.
- Provide enhanced capabilities for coalition Special Operations Command intelligence sharing capabilities.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2		P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures
		Item Number / Title [DODIC]: International Intel Tech & Architectures

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	8.290	11.386	9.283	-	9.283
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	8.290	11.386	9.283	-	9.283
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	8.290	11.386	9.283	-	9.283

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - International Intel Tech Cost																		
Recurring Cost																		
Workstation Suites	-	-	0.000	0.002	216	0.432	0.002	318	0.636	0.002	320	0.640	-	-	-	0.002	320	0.640
Server Suites	-	-	0.000	0.015	28	0.420	0.015	36	0.540	0.015	28	0.420	-	-	-	0.015	28	0.420
Laptop Suites	-	-	0.000	0.002	9	0.018	0.002	12	0.024	0.003	7	0.021	-	-	-	0.003	7	0.021
Printers	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Storage and Backup Suites	-	-	0.000	0.024	7	0.168	0.024	9	0.216	0.024	8	0.192	-	-	-	0.024	8	0.192
Network Equipment ^(†)	0.000	5	0.000	0.516	9	4.644	0.516	13	6.708	0.516	10	5.160	-	-	-	0.516	10	5.160
Video Teleconference Suite	-	-	0.000	0.083	4	0.332	0.083	8	0.664	0.083	5	0.415	-	-	-	0.083	5	0.415
Encryption Equipment	-	-	0.000	0.015	27	0.405	0.015	29	0.435	0.015	27	0.405	-	-	-	0.015	27	0.405
Infrastructure	-	-	0.000	0.056	22	1.232	0.056	23	1.288	0.056	23	1.288	-	-	-	0.056	23	1.288
Deployable System Monitors 32 inch LCD (373 Base, 80 OCO)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	0.000	-	-	7.651	-	-	10.511	-	-	8.541	-	-	-	-	-	8.541
Non Recurring Cost																		
Fly-Away Deployable BICES Mobile Units with Video	-	-	0.000	0.042	3	0.126	0.042	5	0.210	0.042	5	0.210	-	-	-	0.042	5	0.210
Subtotal: Non Recurring Cost	-	-	0.000	-	-	0.126	-	-	0.210	-	-	0.210	-	-	-	-	-	0.210

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2						P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures						Item Number / Title [DODIC]: International Intel Tech & Architectures					
ID Code (A=Service Ready, B=Not Service Ready) : B												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware - International Intel Tech Cost</i>	-	-	0.000	-	-	7.777	-	-	10.721	-	-	8.751	-	-	-	-	-	8.751
Software - International Intel Tech Cost																		
Recurring Cost																		
Software Licenses	-	-	0.000	0.076	5	0.380	0.076	7	0.532	0.076	7	0.532	-	-	-	0.076	7	0.532
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.380	-	-	0.532	-	-	0.532	-	-	-	-	-	0.532
<i>Subtotal: Software - International Intel Tech Cost</i>	-	-	0.000	-	-	0.380	-	-	0.532	-	-	0.532	-	-	-	-	-	0.532
Support - International Intel Tech Cost																		
US BICES Mobility	-	-	0.000	-	-	0.044	-	-	0.044	-	-	0.000	-	-	-	-	-	0.000
Program Support	-	-	0.000	-	-	0.089	-	-	0.089	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support - International Intel Tech Cost</i>	-	-	0.000	-	-	0.133	-	-	0.133	-	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Cost	-	-	0.000	-	-	8.290	-	-	11.386	-	-	9.283	-	-	-	-	-	9.283

Remarks:

Automated P-Doc system rounds unit cost and does not allow unit costs below \$1,000.

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2	P-1 Line Item Number / Title: 832050 / International Intel Tech & Architectures	Item Number / Title [DODIC]: International Intel Tech & Architectures
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Network Equipment		2018	GDIT / Springfield VA	SS / IDIQ	AA-CDM	Jan 2018	Apr 2018	5	0.516	N	Dec 2017	Nov 2017
Network Equipment		2019	GDIT / Springfield VA	SS / IDIQ	AA-CDM	Jan 2019	Apr 2019	9	0.516	N	Dec 2018	Nov 2018
Network Equipment		2020	GDIT / Springfield VA	SS / IDIQ	AA-CDM	Jan 2020	Apr 2020	13	0.516	N	Dec 2019	Nov 2019
Network Equipment		2021	GDIT / Springfield VA	SS / IDIQ	AA-CDM	Jan 2021	Apr 2021	10	0.516	N	Dec 2020	Nov 2020

Remarks:
N/A

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
 832060 / Intelligence Training Equipment

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	1.599	7.619	6.849	-	6.849	5.781	5.881	5.987	6.097	-	39.813
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	1.599	7.619	6.849	-	6.849	5.781	5.881	5.987	6.097	-	39.813
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	1.599	7.619	6.849	-	6.849	5.781	5.881	5.987	6.097	-	39.813

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

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

Description:

The Intelligence Training Equipment P-1 line procures equipment for use in initial and advanced training in the General Intelligence and Cryptologic and Signals Intelligence related career fields. The equipment supports training for intelligence officers, geospatial analysts, targeteers, operations analysts, linguists, network analysts, and all communications (except communications security) and electronic intelligence analysts. The systems support intelligence, surveillance, and reconnaissance applications. The major focus of the systems is to provide the sole source for functional training on the newest generation of intelligence systems with an emphasis on computer-based training systems through modeling and simulation. This equipment is critical in preparing military intelligence personnel to support warfighting commanders and the National Intelligence Program (NIP). The equipment supports enterprise-wide intelligence training for Air Force (AF), Department of Defense (DoD), Department of Homeland Security (DHS), and Joint/Coalition Partner personnel at Goodfellow Air Force Base (GAFB), Texas.

PE 0804733F GENERAL INTELLIGENCE SKILL TRAINING (GIST)

GOODFELLOW INTELLIGENCE TRAINING ARCHITECTURE (GITA) UPGRADE: Continues to incorporate new equipment to support the development of the enterprise architecture, consolidating multiple networks and systems into a single integrated GITA.

Funding for this exhibit contained in PE 0804733F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs **P-1 Line Item Number / Title:** 832060 / Intelligence Training Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Intelligence Training Equipment				- / -	- / 1.599	- / 7.619	- / 6.849	- / -	- / 6.849
P-40	Total Gross/Weapon System Cost				- / -	- / 1.599	- / 7.619	- / 6.849	- / -	- / 6.849

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0804733F GENERAL INTELLIGENCE SKILL TRAINING

GOODFELLOW INTELLIGENCE TRAINING ARCHITECTURE (GITA) FY21 funding will used be on the GITA infrastructure to modernize/upgrade the training network backbone and delivery systems supporting over 7600 students annually. Upgrades ensure that GITA meets/exceeds the latest in cyber security requirements at each security level. GITA provides lifecycle support of the hardware and software required to deliver training designed to meet operational customer requirements. GITA encompasses the following: student workstations; network; servers; storage solutions; thin client technology; scenario-based modeling and simulation models; courseware development software; delivery servers; application hardware; and networking equipment. GITA aligns technologies with advanced teaching techniques; increases system capabilities to support ever-evolving operational intelligence tools; and addresses uncertainty in continued sustainment capabilities to reduce failure rates and outages.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2	P-1 Line Item Number / Title: 832060 / Intelligence Training Equipment	Aggregated Items Title: Intelligence Training Equipment
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
UNCATEGORIZED																				
GITA UPGRADE	A		-	-	-	-	-	1.599	-	-	7.619	-	-	6.849	-	-	-	-	-	6.849
Subtotal: UNCATEGORIZED			-	-	-	-	-	1.599	-	-	7.619	-	-	6.849	-	-	-	-	-	6.849
Total			-	-	-	-	-	1.599	-	-	7.619	-	-	6.849	-	-	-	-	-	6.849

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305022F, 0305220F, 0305221F, 1203400F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	21.720	32.048	33.471	0.000	33.471	23.218	23.756	24.292	32.669	0.000	191.174
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	21.720	32.048	33.471	0.000	33.471	23.218	23.756	24.292	32.669	0.000	191.174
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	21.720	32.048	33.471	0.000	33.471	23.218	23.756	24.292	32.669	0.000	191.174

(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:

PE 0207431F Combat Air Intelligence System Activities - P-40A

Enhanced GEOSPATIAL PRODUCT LIBRARY (eGPL): eGPL provides all AF units access to digital GEOINT and targeting data products in support of targeting, intelligence and mission planning processes, including support to units deploying to South West Asia and North Africa. It provides the sole resource to store and immediately retrieve large digital files and mission essential GEOINT data required to conduct AF mission sets. This storage includes tape drives to ensure data survivability and rapid back-up/restoration 20 times faster than network technology, freeing units critical time to support mission tasks.

UNIT LEVEL INTELLIGENCE (ULI) SYSTEMS & Center of Excellence (COE): ULI fields the Personal Computer- Integrated Imagery and Intelligence (PC-I3/T) and Targeting Application Workstation (TAW) systems which are used by intelligence analysts to produce Targeting and Mission Planning materials. The ULI COE provides reach back support for the field units on hardware and software issues. The COE also provides MX/IA patch development and distribution services.

JOINT TARGETING TOOLBOX (JTT): Provides JTT servers for interfacing programs to test against. Servers are needed on Unclassified and Secret environments and will require software licenses to support operations.

INFORMATION FOR OPERATIONAL AND TACTICAL ANALYSIS (IOTA): Provides web-based information management in the form of automated ingest and analysis of combat intelligence, surveillance, and reconnaissance (ISR) reports. The two ISR-related components of IOTA are the mission report (MISREP) analysis tool (MAT) and ISR Assessment Tool (IAT).

Targeting and Geospatial-Intelligence (T&G) Program Management Office (PMO): Provides the infrastructure that enables the agile development, sustainment, and fielding of new T&G capabilities, and ensures that the technical baseline is established and controlled by the Government. Sustainment includes help desk support, documentation, information assurance, STIGs/TCNOs, software patches and fixes. Fielding supports ULI, eGPL, JTT, IOTA, and any new T&G capability not fielded via other paths.

PE 0208288F Intel Data Applications - P-40A

Enhance existing radar system via additional antennas and transmitters in order to expand simultaneous collection capability while providing an permanent capability for operations eliminating the need for full system maintenance downtime.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs		P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305022F, 0305220F, 0305221F, 1203400F
Line Item MDAP/MAIS Code: N/A		
<p>PE 0305022F ISR Modernization & Automation Dvmt (IMAD) - P-40A IT equipment required for kill chain automation to centrally manage ISR data wrangling, data aggregation, AI/machine learning, tool development, and automation.</p> <p>PE 0305146F Defense Joint Counterintelligence Activities - P-40A Enables Cyber Counterintelligence and Technical Surveillance/Technical Surveillance Countermeasures (TSCM) support to counterintelligence operations conducted by the Air Force Office of Special Investigations (AFOSI) for AF and DoD entities, to detect and deter covert activities conducted by Foreign Intelligence Services seeking to compromise classified or sensitive information. The technical equipment required for these investigations is unique and complex, and is a part of the formally designated USAF TSCM weapons system and/or the Cyber Counterintelligence suite of tools.</p> <p>PE 0305179F Integrated Broadcast Service (IBS) - P-40A INTEGRATED BROADCAST SERVICE (IBS): The IBS is a multi-sensor, multisource system of systems for the dissemination of integrated threat warning and blue force tracking information. IBS provides intelligence producers and information sources the means to analyze and disseminate strategic, operational, and tactical intelligence and warning information directly to the warfighter. The IBS operational baseline represents the migration, integration, and consolidation of existing tactical data dissemination into a future common architecture message format.</p> <p>PE 0305192F Military Intelligence Program (MIP) Activities - P-40A Will fund information recovery technology for Enterprise Service Centers. Funds will also be used to procure servers, storage devices, associated hardware upgrades, and installation costs.</p> <p>PE 0305208F Distributed Common Ground/Surface Systems - P-5 The FY19 OCO funding request will be used to procure communications equipment for the DCGS program.</p> <p>PE 0305221F Network-Centric Collaborative Targeting - P-40A Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies supporting the horizontal and/or vertical integration of Intelligence, Surveillance and Reconnaissance (ISR) sensor systems. The result of such integration is a multi-intelligence (multi-INT) sensor network. Operationally, NCCT Core Technologies provide a tactical collaborative multi-INT geolocation capability employed against high-value targets. NCCT software supports Machine-to-Machine (M2M) cross-cueing and Internet Protocol (IP) connectivity to coordinate collection activities across the NCCT network. NCCT correlation and fusion software ingests collection data to produce a single, composite track (geolocation and identification) in near real-time for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (for example Operations Interfaces, Network Controllers, Fusion Engines, Data Guards, Interface to Command & Control, and Interface to Overhead Intelligence Operations (OIO)), the migration of the NCCT technologies to emerging network centric technologies, global web-enabled services, and satisfying DoD standards and Information Assurance requirements.</p> <p>NCCT Core Technology includes, but is not limited to, network management software, a network messaging standard, correlation and fusion software, software supporting tactical-to-national Signals Intelligence (SIGINT) Concept of Operations (CONOPS), NCCT multi-level security hardware and software items and operator interfaces. Development funds support software modifications required for technology modernization specific to network and fusion architecture design, data fusion algorithms and cyber security, while keeping pace with evolving adversary tactics, techniques, and procedures (TTPs). FY 2021 funding will be dedicated to completing the transition of NCCT Core Technology to a cloud-enabled architecture across the enterprise, integrating with other intelligence phenomenologies, developing new multi-INT use cases, and the continuation of rapid software deliveries based on continuous user feedback and agile methodologies.</p> <p>Funding for this exhibit contained in PE 0305221F.</p> <p>PE 0307577F Intelligence Mission Data (IMD) - P-40A Funding will enable procurement of equipment for Advanced NCTR Collect and storage systems supporting Operational Reconnaissance data automation.</p> <p>PE 1203400F Space Superiority Intelligence - P-40A PE 123400F, SPACE SUPERIORITY INTELLIGENCE</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs		P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305022F, 0305220F, 0305221F, 1203400F
Line Item MDAP/MAIS Code: N/A		
<p>This PE executes requirements for SSI. Funds may be used for other AFNet requirements if required. Current year funding includes \$2M in Overseas Contingency Operations funds requested in the FY18 PB.</p> <p>ARC STORM: Uses commercially available technology and systems to provide the rapid geo-location of commercial satellite communication emitter locations, utilizing unmanned, remotely operated systems located in key area throughout the world.</p> <p>Funds are required to re-capitalize current fielded systems that have operated for 4 years. Processing equipment runs 24/7 to support high utilization rates. Antennas and supporting equipment are fully exposed to the elements, experience a great deal of physical movement, and are reaching end of life expectancy.</p> <p>ARC STORM systems will become inoperable without equipment recapitalization; resulting in loss of geo-location collection. Funds will allow immediate re-capitalization of two fielded systems plus an additional spare, allowing for continued support to operations.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs

P-1 Line Item Number / Title:
832070 / Intelligence Comm Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305022F, 0305220F, 0305221F, 1203400F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Combat Air Intelligence System Activities				- / -	- / 6.835	- / 5.363	- / 14.535	- / -	- / 14.535
P-40a	Intel Data Applications				- / -	- / 5.471	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40a	ISR Modernization & Automation Dvmt (IMAD)				- / 0.000	- / 0.000	- / 0.000	- / 3.280	- / -	- / 3.280
P-40a	Defense Joint Counterintelligence Activities				- / -	- / 0.952	- / 2.644	- / 2.507	- / -	- / 2.507
P-40a	Integrated Broadcast Service (IBS)				- / -	- / 0.000	- / 16.743	- / 5.727	- / -	- / 5.727
P-40a	Military Intelligence Program (MIP) Activities				- / -	- / 4.080	- / 4.150	- / 3.949	- / -	- / 3.949
P-5	Distributed Common Ground/Surface Systems		A		- / 0.000	- / 0.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40a	Network-Centric Collaborative Targeting				- / -	- / 3.095	- / 3.148	- / 2.997	- / -	- / 2.997
P-40a	Intelligence Mission Data (IMD)				- / -	- / 0.602	- / 0.000	- / 0.476	- / -	- / 0.476
P-40a	Space Superiority Intelligence				- / -	- / 0.285	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 21.720	- / 32.048	- / 33.471	- / 0.000	- / 33.471

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
UNIT LEVEL INTELLIGENCE (ULI) SYSTEMS & Center of Excellence (COE): FY21 funding provides for the capital equipment replacement of ULI systems providing crucial capabilities to the Warfighter to include Intelligence Preparation of the Operational Environment (IPOE), data gathering and compilation, support to mission execution, intelligence reporting, targeting, weapon systems video processing, and post-mission assessment support at over 327 units worldwide. The COE is critical to the ULI mission performing all system integration work, functional testing, cyber security scans, MX/IA releases, help desk support, and fields the hardware and software components needed to successfully employ the Targeting Applications Workstation and the Personal Computer - Integrated Imagery and Intelligence/Targeting systems.

PE 0305022F ISR Modernization & Automation Dvmt (IMAD) - P-40A
FY21 funding required for IT equipment for kill chain automation to centrally manage ISR data wrangling, data aggregation, AI/machine learning, tool development, and automation.

PE 0305146F Defense Joint Counterintelligence Activities - P-40A
FY21 funding procures equipment to provide state of the art capabilities to detect and neutralize foreign intelligence entity (FIE) and criminal activities targeted against sensitive and classified AF and DoD information and activities.

PE 0305179F Integrated Broadcast Service (IBS) - P-40A
FY21 funding for IBS procurement efforts are focused in the following areas:

1. CIB UPLINK SITE (CUS) Serves as the control system for the CIB Uplink Site and interface to the IBS Network Services (IBS-NS). Each major release of the software incorporates approved requirements as necessitated by mission changes, system interoperability requirements, and system security. The new release supports migration to CIB Uplink Sites.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 2: Intelligence Programs		P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305022F, 0305220F, 0305221F, 1203400F
Line Item MDAP/MAIS Code: N/A		
<p>2. COMMON INTERACTIVE BROADCAST/INTEGRATED WAVEFORM PLANNING TOOL (CIB/IW-PT): The CIB-PT provides the COCOM Planners an integrated software/hardware mechanism to allocate space-based communications resources to theater and national producers, specifically to reliably optimize the timeliness of scarce bandwidth allocation of extremely time-critical messages. Each major release of the software/hardware incorporates updated producer prioritization, bandwidth allocation, mission monitoring and interfaces to the STRATCOM systems as necessitated by mission changes, system interoperability, and system security compliance to achieve threshold requirements.</p> <p>3. COMMON MESSAGE FORMAT PARSER LIBRARY (CMFPL): The CMF repository is required for the automatic exchange of data among processing, exploitation, and dissemination (PED) systems. This effort procures the infrastructure for dynamic software library updates for multiple operating systems essential to broadcast operation.</p> <p>4. IBS V&V Environment: Procures simulation and stimulation tools to certify and verify mission equipment for operational use. Included is software/hardware/firmware components of the IBS verification and validation process used to emulate multiple systems messaging under operational conditions and the UNIVERSAL CIB TEST SET (UCTS) a component that emulates the UHF SATCOM environment.</p> <p>5. TERMINAL, DATALINK, & ENTERPRISE SERVER MITIGATION: Funds direct mission support activities such as verification & validation documentation; uplink receive and transmit terminal upgrade, enhancements and spares; mitigation; CMF product support; JOINT TACTICAL DATA LINK, i.e., Link 16 support; product documentation; studies and analyses; IBS Web Support and contractor system engineering activities.</p> <p>6. IBS-NS: Scaling capability is required for messaging under operational use. Funds approved modernization of Global IBS Network Servers (GINS) and Theater Interface Nodes (TINS), technology refreshment and integration as necessitated by mission changes, system interoperability, and system security.</p> <p>7. Downlink Monitoring Element (DME): Monitoring tool that monitors IBS activity.</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p> <p>PE 0305192F Military Intelligence Program (MIP) Activities - P-40A FY21 funding will procure information recovery technology for Enterprise Service Centers. Funds will also be used to procure servers, storage devices, associated hardware upgrades, and installation costs.</p> <p>PE 0305221F Network-Centric Collaborative Targeting - P-40A FY 2021 funding will procure NCCT hardware in support of a new software baseline roll out, user requested upgrades, and cloud-enabled architecture. NCCT Core Technology and cloud architecture investments include, but are not limited to, operational interfaces, network controllers, fusion engines, and data guards for multi-level security hardware and software items based on operator specified rule sets. NCCT Core Technology and cloud architecture will also support integrating with other intelligence phenomenologies, developing new multi-INT use cases, the continuation of rapid software deliveries, and Air Force and Joint experiments, demonstrations and exercises as necessary.</p> <p>PE 0307577F Intelligence Mission Data (IMD) - P-40A IMD Advanced NCTR Collect: FY21 funding required for procurement Operational Reconnaissance Data Automation: Funding will deliver 2x Servers, 1x Storage Area Network, 2x Fiber Channel switches, 1 x KVM, 2x Rack, 2x Management switches, server management and database software</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Combat Air Intelligence System Activities

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
CAIS PE 0207431F	A		-	-	-	-	-	2.523	-	-	1.887	-	-	10.998	-	-	-	-	-	10.998
ULI	A		-	-	-	-	-	2.312	-	-	3.476	-	-	3.537	-	-	-	-	-	3.537
GPL	A		-	-	-	-	-	2.000	-	-	-	-	-	-	-	-	-	-	-	-
IStore	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GCCS-I3	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IOTA	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COE T&G Integrator	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JTT	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	6.835	-	-	5.363	-	-	14.535	-	-	-	-	-	14.535
Total			-	-	-	-	-	6.835	-	-	5.363	-	-	14.535	-	-	-	-	-	14.535

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Intel Data Applications

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Intel Data Applications																				
New Item	A		-	-	-	5.471	1	5.471	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Intel Data Applications			-	-	-	-	-	5.471	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Total			-	-	-	-	-	5.471	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2					P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment					Aggregated Items Title: ISR Modernization & Automation Dvmt (IMAD)									

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
IMAD Kill Chain Automation IT Eqmt PE 35022F																				
IT Equipment	A		-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.280	-	-	-	-	-	3.280
Subtotal: IMAD Kill Chain Automation IT Eqmt PE 35022F			-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.280	-	-	-	-	-	3.280
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.280	-	-	-	-	-	3.280

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2						P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment						Aggregated Items Title: Defense Joint Counterintelligence Activities							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
DEFENSE JOINT COUNTERINTELLIGENCE PROGRAM PE 0305146F	A		-	-	-	-	-	0.952	-	-	2.644	-	-	2.507	-	-	-	-	-	2.507
Subtotal: Uncategorized			-	-	-	-	-	0.952	-	-	2.644	-	-	2.507	-	-	-	-	-	2.507
Total			-	-	-	-	-	0.952	-	-	2.644	-	-	2.507	-	-	-	-	-	2.507

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Integrated Broadcast Service (IBS)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Integrated Broadcast Service-Network Services																				
PMA- Travel	A		-	-	-	-	-	-	-	-	-	-	-	0.059	-	-	-	-	-	0.059
CIB Uplink Site	A		-	-	-	-	-	-	-	-	3.925	-	-	1.000	-	-	-	-	-	1.000
COMMON INTERACTIVE BROADCAST PLANNING TOOL (CIB-PT)	A		-	-	-	-	-	-	-	-	1.325	-	-	1.000	-	-	-	-	-	1.000
COMMON MESSAGE FORMAT PARSER LIBRARY (CMFPL)	A		-	-	-	-	-	-	-	-	2.800	-	-	0.800	-	-	-	-	-	0.800
IBS V&V	A		-	-	-	-	-	-	-	-	4.125	-	-	0.500	-	-	-	-	-	0.500
TERMINAL, DATALINK, & ENTERPRISE SERVER MIGRATION	A		-	-	-	-	-	0.000	-	-	3.200	-	-	1.000	-	-	-	-	-	1.000
IBS-NS	A		-	-	-	-	-	-	-	-	1.368	-	-	1.368	-	-	-	-	-	1.368
Subtotal: Integrated Broadcast Service-Network Services			-	-	-	-	-	0.000	-	-	16.743	-	-	5.727	-	-	-	-	-	5.727
Total			-	-	-	-	-	0.000	-	-	16.743	-	-	5.727	-	-	-	-	-	5.727

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

Remarks:
 (6) IBS-NS: Capital equipment replacement of the Global IBS Servers (GINS), Theater Interface Nodes (TINS), CIB Uplink Sites (CUS), and IBS Network equipment

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2	P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment	Aggregated Items Title: Military Intelligence Program (MIP) Activities
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Equipment																				
Equipment	A		-	-	-	4.080	1	4.080	4.150	1	4.150	3.949	1	3.949	-	-	-	3.949	1	3.949
Subtotal: Equipment			-	-	-	-	-	4.080	-	-	4.150	-	-	3.949	-	-	-	-	-	3.949
Total			-	-	-	-	-	4.080	-	-	4.150	-	-	3.949	-	-	-	-	-	3.949

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

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2	P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment	Item Number / Title [DODIC]: Distributed Common Ground/Surface Systems

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.400	0.000	0.000	0.000	0.000
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.400	0.000	0.000	0.000	0.000
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.400	0.000	0.000	0.000	0.000

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

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

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Distributed Common Ground/Surface Systems Cost																		
Non Recurring Cost																		
Equipment	-	-	0.000	-	-	0.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	0.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
<i>Subtotal: Hardware - Distributed Common Ground/Surface Systems Cost</i>	-	-	0.000	-	-	0.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Gross/Weapon System Cost	-	-	0.000	-	-	0.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Network-Centric Collaborative Targeting

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
Network Centric Collaborative Targeting	A		-	-	-	-	-	3.095	-	-	3.148	-	-	2.997	-	-	-	-	-	2.997
Subtotal: Uncategorized			-	-	-	-	-	3.095	-	-	3.148	-	-	2.997	-	-	-	-	-	2.997
Total			-	-	-	-	-	3.095	-	-	3.148	-	-	2.997	-	-	-	-	-	2.997

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2 **P-1 Line Item Number / Title:** 832070 / Intelligence Comm Equipment **Aggregated Items Title:** Intelligence Mission Data (IMD)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Intelligence Mission Data (IMD)																				
Operational Reconnaissance Data Automation	A		-	-	-	-	-	0.301	-	-	0.000	-	-	0.476	-	-	-	-	-	0.476
Intelligence Mission Data (IMD) Advanced NCTR Collect	A		-	-	-	-	-	0.301	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Intelligence Mission Data (IMD)			-	-	-	-	-	0.602	-	-	0.000	-	-	0.476	-	-	-	-	-	0.476
Total			-	-	-	-	-	0.602	-	-	0.000	-	-	0.476	-	-	-	-	-	0.476

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 2	P-1 Line Item Number / Title: 832070 / Intelligence Comm Equipment	Aggregated Items Title: Space Superiority Intelligence
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Space Superiority Intel																				
Space Superiority Intel Activities	A		-	-	-	-	-	0.285	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Space Superiority Intel			-	-	-	-	-	0.285	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Total			-	-	-	-	-	0.285	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833010 / Air Traffic Control & Landing Sys

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	87.330	22.939	29.409	-	29.409	119.511	48.321	42.217	67.701	-	417.428
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	87.330	22.939	29.409	-	29.409	119.511	48.321	42.217	67.701	-	417.428
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	87.330	22.939	29.409	-	29.409	119.511	48.321	42.217	67.701	-	417.428

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

Initial Spares (<i>\$ in Millions</i>)	-	1.074	1.394	1.451	-	1.451	5.804	1.916	1.639	1.670	-	14.948
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Air Traffic Control and Landing Systems (ATCALs) procures and supports fixed-base and tactical radar, navigation aids, voice communications, and data processing/automation capabilities which enables Air Force (AF) air traffic controllers to provide advisory, sequencing, separation, and landing guidance services to all aircraft in AF-assigned airspace. In support of Global Mobility, Agile Combat Support, Global Strike, Homeland Security, and Global Response concepts of operation, ATCALs centrally manages the Air Force's Air Traffic Control capability to ensure Air Traffic Control facilities/equipment can safely and expeditiously support en route and terminal operations in benign and combat areas of responsibility. ATCALs operational and training systems must be interoperable with systems operated by other services, the Federal Aviation Administration (FAA), or host nations.

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.

AIR TRAFFIC CONTROL AND AIRFIELD OPERATIONS (ATC OPS): ATC OPS provides for procurement of new systems and replacement, modification, or mitigation of diminishing manufacturing source issues of legacy ATC navigation and landing systems, as well as related voice communications, data processing/automation systems, and ancillary equipment such as ATC digital audio legal recorders, flight data input/output systems, electronic flight strip systems, air traffic information systems, terminal instrument procedures, and airfield management systems. Key elements of ATC OPS are:

1. DIGITAL AIR TRAFFIC CONTROL (ATC) RADIO REPLACEMENT: The ATC ground-to-air Very High Frequency (VHF) and Ultra High Frequency (UHF) radios are 30 years old and difficult to maintain. The Digital ATC Radio Replacement Program will replace ATC fixed-base and mobile ATC tower radios with state-of-the-art systems that will include a remote maintenance capability and 8.33kHz channel spacing (mandatory requirement in Europe by FY2018, completed on time). In order to ensure system commonality and common logistics support and training, ATC radios are being procured as a centrally managed item by the Air Force Life Cycle Management Center at Tinker AFB. Approximately 5,400 radios will be replaced.
2. DEPLOYABLE RADAR APPROACH CONTROL SYSTEM (D-RAPCON): D-RAPCON will replace the 1960/1970s era AN/MPN-14K and AN/TPN-19 systems with state-of-the-art digital systems. Modification and overhaul of the existing systems has proven to be ineffective due to diminishing manufacturing sources. D-RAPCON will provide aircraft surveillance/ sequencing, air traffic control communications, and automation capabilities for terminal area air traffic control operations. D-RAPCON can also be deployed with a D-ILS, mobile control tower, and mobile TACAN to provide a complete air traffic control capability. The D-RAPCON will support tactical military and worldwide humanitarian operations and also support domestic disaster relief. Due to diminishing manufacturing sources, life of type purchases will be required each year.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs	P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

3. DEPLOYABLE INSTRUMENT LANDING SYSTEM (D-ILS): D-ILS is a Category I (200ft decision height/2400ft runway visual range) ILS with remote monitoring and maintenance capabilities. D-ILS will provide precision approach capability in adverse weather conditions to support tactical military and worldwide humanitarian/disaster relief operations and provide interoperability with the Civil Reserve Air Fleet in an area of responsibility. D-ILS also replaces the current Air Force mobile Precision Approach Radar (PAR) system. The PAR systems were procured in the 1970s, are manpower intensive, and logistically unsupportable. On average, only four of 14 mobile PAR systems are operational on a daily basis and none are fully mission capable. Due to diminishing manufacturing sources, life of type purchases will be required as needed. A total of 19 D-ILSs will be procured (8 AD, 10 Air National Guard (ANG), and one depot rotatable). D-ILS is normally deployed with the Deployable Radar Approach Control System, a mobile Air Traffic Control Tower, and mobile TACAN.

4. ATCALs Fixed Base (FB) Navigational Aids (NAVAIDS) FOS: The FB NAVAIDS FOS program replaces the current 1970s era systems which have reached the end of their normal lifespan, are manpower intensive, and costly to support. New systems will include remote maintenance, monitoring, alignment, and flight inspection support capabilities via Remote Maintenance Centers (RMC). One VOR (Active Duty (AD)), 28 VORTACs (25 AD/1 Air National Guard (ANG)/2 Air Force Reserve (AFR)), and 92 fixed-based TACANs (74 AD/11 ANG/7 AFR) were procured from FY2012 through FY2018. FY2018 was last year of Other Procurement funding. Installations and organic depot stand-up are on-going, however installations will continue to take place in FY21 and FY22. Mid-way through the production and installation phase, the program encounter an issue with counterfeit parts in the system's Uninterrupted Power Supply (UPS). The counterfeit parts were sequestered by Dept of Justice while the supplier was being investigated. The lack of parts impacted production of the UPS which, in turn, prevented the program from performing additional installations. This installation pause lasted 11 months before the UPS issue was resolved. Once production commenced, the program was lead-time away from receiving new UPS kits for installation and FAA flight check certification. This lead-time put the program two years behind PEO-approved APB schedule. With these systems, the AF will have a reliable, adaptable, and enduring capability that will support all joint, coalition, and civil operations.

5. FIXED BASE PRECISION APPROACH RADAR (PAR): The fixed base 1970s era PAR AN/GPN-22 systems have been in service beyond its originally planned end of life cycle of the late 1990's. A replacement is required as the current system is not economically supportable. Due to the age of the system, maintenance costs, obsolescence, diminishing manufacturing sources, and reliability problems have increased. Most fixed base PARs have already been replaced with fixed base ILSs; however, PARs are still required to provide an adverse weather landing capability at select bases. Replacement systems will be procured through an existing Navy fixed price contract.

6. FIXED BASE INSTRUMENT LANDING SYSTEM (FB ILS): FB ILS consists of two subsystems which provide horizontal (localizer) and vertical (glide slope) guidance to enable aircraft to make a precision approach to a runway in inclement weather. FY21 funds procure two systems for installation on new runway at Osan AB, Korea.

FY19 prior year funding totals include \$23.484M appropriated for Overseas Contingency Operations.

FY21 funding request was reduced by \$39.376 million to account for the availability of prior year execution balances.

Funding for this exhibit is contained in Program Element (PE) 0305114F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	126	483	646	0	646	972	270	459	1,015
	Total Obligation Authority	74.352	20.147	25.618	0.000	25.618	110.483	48.321	42.217	67.701
AFNG	Quantity	51	100	199	0	199	150	0	0	0
	Total Obligation Authority	12.258	1.860	3.791	0.000	3.791	9.028	0.000	0.000	0.000
AFR	Quantity	40	50	0	0	0	0	0	0	0
	Total Obligation Authority	0.720	0.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total:	Quantity	217	633	845	0	845	1,122	270	459	1,015

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs	P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	87.330	22.939	29.409	0.000	29.409	119.511	48.321	42.217	67.701

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 833010 / Air Traffic Control & Landing Sys
Equip / BSA 3: Electronics Programs

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Digital Air Traffic Control Radio Replacement				- / -	- / 4.234	- / 12.576	- / 16.775	- / -	- / 16.775
P-5	D-ILS		A		- / -	2 / 27.084	- / 5.000	- / 1.502	- / -	- / 1.502
P-5	Deployable Radar Approach Control (D-RAPCON)		A		- / -	1 / 51.012	- / 5.363	- / 0.062	- / 0.000	- / 0.062
P-40a	Fixed Base ILS				- / -	- / 0.000	- / 0.000	- / 1.498	- / 0.000	- / 1.498
P-40a	Fixed Base Precision Approach Radar (PAR)				- / -	- / 5.000	- / 0.000	- / 9.572	- / -	- / 9.572
P-40	Total Gross/Weapon System Cost				- / -	- / 87.330	- / 22.939	- / 29.409	- / -	- / 29.409

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

This program, Air Traffic Control & Landing Sys P-40A Category Fixed Base Instrument Landing System Item AN/GRN-29 ILS, is a new start.

1. DIGITAL AIR TRAFFIC CONTROL (ATC) RADIO REPLACEMENT: FY21 funds procure 881 systems (682 AD/199 ANG/0 AFR).
2. ATCALs Fixed Base (FB) Navigational Aids (NAVAIDS) Family of Systems (FOS): No Budget Year FY21 funds requested.
3. DEPLOYABLE INSTRUMENT LANDING SYSTEM (D-ILS): FY21 - Funds procure program management/office support.
4. DEPLOYABLE RADAR APPROACH CONTROL (D-RAPCON): No Budget Year FY21 funds requested.
5. FIXED BASE PRECISION APPROACH RADAR (PAR): FY21 funds procure 2 systems (2 AD/0 ANG/0 AFR).
6. FIXED BASE INSTRUMENT LANDING SYSTEM (FB ILS): FY21 funds procure 2 system (2 AD/0 ANG/0 AFR).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3										P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys					Aggregated Items Title: Digital Air Traffic Control Radio Replacement				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Digital Air Traffic Control (ATC) Radios - Support																				
Digital Air Traffic Control (ATC) Radios - Program Management Support	A		-	-	-	-	-	0.400	-	-	0.800	-	-	0.791	-	-	-	-	-	0.791
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.400	-	-	0.800	-	-	0.791	-	-	-	-	-	0.791
Subtotal: Digital Air Traffic Control (ATC) Radios - Support			-	-	-	-	-	0.400	-	-	0.800	-	-	0.791	-	-	-	-	-	0.791
Digital Air Traffic Control (ATC) Radios																				
Single Channel ATC Radio	A		-	-	-	0.018	213	3.834	0.019	633	11.776	0.019	841	15.984	-	-	-	0.019	841	15.984
<i>Secondary Distribution</i>																				
AF			-	-	-		123	2.214		483	8.984		642	12.193		-	-		642	12.193
AFNG			-	-	-		50	0.900		100	1.860		199	3.791		-	-		199	3.791
AFR			-	-	-		40	0.720		50	0.932		-	-		-	-		-	-
Subtotal: Digital Air Traffic Control (ATC) Radios			-	-	-	-	-	3.834	-	-	11.776	-	-	15.984	-	-	-	-	-	15.984
Total			-	-	-	-	-	4.234	-	-	12.576	-	-	16.775	-	-	-	-	-	16.775

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

Remarks:
Radios are identified in supply system as centrally managed are being procured by the Air Force Life cycle Management Center at Tinker AFB through an FAA contract awarded to General Dynamics with fixed price options extending through 2022.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys	Item Number / Title [DODIC]: D-ILS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	2	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	27.084	5.000	1.502	-	1.502
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	27.084	5.000	1.502	-	1.502
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	27.084	5.000	1.502	-	1.502

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

Initial Spares (\$ in Millions)	-	0.000	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	13.542	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - D-ILS Cost																		
Recurring Cost																		
D-ILS Systems Active Duty ⁽¹⁾	-	-	-	3.610	1	3.610	-	-	-	-	-	-	-	-	-	-	-	-
D-ILS ANG	-	-	-	3.610	1	3.610	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	7.220	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - D-ILS Cost</i>	-	-	-	-	-	7.220	-	-	-	-	-	-	-	-	-	-	-	-
Support - D-ILS Cost																		
Direct Mission Support	-	-	-	-	-	7.776	-	-	-	-	-	-	-	-	-	-	-	-
PMA Contractor Services AFLCMC (Hanscom AFB)	-	-	-	-	-	1.591	-	-	1.550	-	-	1.502	-	-	-	-	-	1.502
Interim Contractor Support	-	-	-	-	-	5.274	-	-	-	-	-	-	-	-	-	-	-	-
ECPs	-	-	-	-	-	1.324	-	-	2.041	-	-	-	-	-	-	-	-	-
Contractor Program Management	-	-	-	-	-	3.899	-	-	1.409	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - D-ILS Cost</i>	-	-	-	-	-	19.864	-	-	5.000	-	-	1.502	-	-	-	-	-	1.502
Gross/Weapon System Cost	-	-	-	13.542	2	27.084	-	-	5.000	-	-	1.502	-	-	-	-	-	1.502

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys	Item Number / Title [DODIC]: D-ILS
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	1	-	-	-	-
	Total Obligation Authority	15.726	5.000	1.502	-	1.502
AFNG	Quantity	1	-	-	-	-
	Total Obligation Authority	11.358	0.000	0.000	-	0.000
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	-	0.000
Total: Secondary Distribution	Quantity	2	-	-	-	-
	Total Obligation Authority	27.084	5.000	1.502	-	1.502

Footnotes:

(1) Firm Fixed Price (FFP) contract with production option.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force													Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys						Item Number / Title [DODIC]: Deployable Radar Approach Control (D-RAPCON)						
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total				
Procurement Quantity (Units in Each)				-		1		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)				-		51.012		5.363		0.062		0.000		0.062				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				-		51.012		5.363		0.062		0.000		0.062				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Total Obligation Authority (\$ in Millions)				-		51.012		5.363		0.062		0.000		0.062				
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		0.932		0.950		0.000		-		0.000				
Gross/Weapon System Unit Cost (\$ in Millions)				-		51.012		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - D-RAPCON Cost																		
Recurring Cost																		
PME Refurbished Unit Active Duty	-	-	-	12.500	1	12.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PME Production Unit Active Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	12.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
<i>Subtotal: Hardware - D-RAPCON Cost</i>	-	-	-	-	-	12.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Support - D-RAPCON Cost																		
Facility Set-up and NRE	-	-	-	-	-	25.531	-	-	0.000	-	-	-	-	-	-	-	-	-
Direct Mission Support/ GFE	-	-	-	-	-	1.481	-	-	0.807	-	-	-	-	-	-	-	-	-
PMA Contractor Services AFLCMC (Hanscom AFB)	-	-	-	-	-	3.500	-	-	3.910	-	-	0.062	-	-	-	-	-	0.062
PMA Other Government Costs	-	-	-	-	-	2.000	-	-	0.646	-	-	-	-	-	-	-	-	-
Depot Activation/Stand-up	-	-	-	-	-	6.000	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - D-RAPCON Cost</i>	-	-	-	-	-	38.512	-	-	5.363	-	-	0.062	-	-	-	-	-	0.062
Gross/Weapon System Cost	-	-	-	51.012	1	51.012	-	-	5.363	-	-	0.062	-	-	0.000	-	-	0.062

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys	Item Number / Title [DODIC]: Deployable Radar Approach Control (D-RAPCON)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Remarks:
The D-RAPCON FY20 and FY21 funding requests reflect a new program office estimate. The new estimate is based on earned value of the current contract and production of similar systems incorporating the latest Non-Advocate Cost Assessment (NACA).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	1	-	-	-	-
	Total Obligation Authority	51.012	5.363	0.062	0.000	0.062
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000
AFR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000
Total: Secondary Distribution	Quantity	1	-	-	-	-
	Total Obligation Authority	51.012	5.363	0.062	0.000	0.062

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833010 / Air Traffic Control & Landing Sys **Aggregated Items Title:** Fixed Base ILS

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Fixed Base Instrument Landing System																				
AN/GRN-29 ILS	A		-	-	-	-	-	0.000	-	-	0.000	0.749	2	1.498	-	-	0.000	0.749	2	1.498
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	0.000	-	2	1.498	-	-	0.000	-	2	1.498
Subtotal: Fixed Base Instrument Landing System			-	-	-	-	-	0.000	-	-	0.000	-	-	1.498	-	-	0.000	-	-	1.498
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	1.498	-	-	0.000	-	-	1.498

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833010 / Air Traffic Control & Landing Sys						Aggregated Items Title: Fixed Base Precision Approach Radar (PAR)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Fixed Base Precision Approach Radar (PAR)																				
Precision Approach Radar	A		-	-	-	5.000	1	5.000	-	-	0.000	4.786	2	9.572	-	-	-	4.786	2	9.572
<i>Secondary Distribution</i>																				
AF				-	-		1	5.000		-	0.000		2	9.572		-	-		2	9.572
Subtotal: Fixed Base Precision Approach Radar (PAR)			-	-	-	-	-	5.000	-	-	0.000	-	-	9.572	-	-	-	-	-	9.572
Total			-	-	-	-	-	5.000	-	-	0.000	-	-	9.572	-	-	-	-	-	9.572

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

Remarks:
FY19 funds Congressional add. System being procured through existing Fixed Price Navy Contract.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833030 / Battle Control System - Fixed

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	2.846	3.063	7.909	-	7.909	3.172	3.228	3.287	3.348	-	26.853
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	2.846	3.063	7.909	-	7.909	3.172	3.228	3.287	3.348	-	26.853
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	2.846	3.063	7.909	-	7.909	3.172	3.228	3.287	3.348	-	26.853

(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:

BCS-F supports the North American Aerospace Defense Command/ Northern Command (NORAD/NORTHCOM) homeland defense and air sovereignty mission for fixed Air Defense Sectors.

BATTLE CONTROL SYSTEM-FIXED (BCS-F): BCS-F is a Bi-national program with Canada. The BCS-F Program is an AF Homeland Defense battle management command and control system with the capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive air picture. BCS-F provides tactical communications and data link capabilities with other military and civil systems responsible for planning, directing, coordinating and controlling forces for air surveillance, air defense, and control of sovereign US air space. This integrated air picture enhances the capability to conduct peacetime air sovereignty operations and transition to active air defense operations in the event of aggression. Life cycle replacement will be required to prevent system obsolescence, account for new cyber security requirements and posture the program to seamlessly integrate future capabilities.

NATIONAL CAPITOL REGION - INTEGRATED AIR DEFENSE SYSTEM (NCR-IADS): NCR-IADS is a post-September 11, 2001 rapidly fielded capability that improves low altitude detection capability in order to prosecute airborne threats to the NCR. NCR-IADS provides ground-based air defense of the National Capitol Region airspace, and provides an integrated air picture, ground air defense weapons, enhanced regional situational awareness and forensic data collection capabilities for the warfighter mission to protect the NCR. Life cycle replacement will be required, to prevent system obsolescence, account for new cyber security requirements and posture the program to seamlessly integrate future capabilities.

BATTLE CONTROL SYSTEM MODERNIZATION: Provides for capital equipment replacement activities at the fixed Air Defense Sectors under the modification efforts for Release 3.2.5 and beyond, which include, but are not limited to: infrastructure upgrades, future Diminishing Manufacturing Sources (DMS), and replacement of other equipment that does not qualify for Centralized Asset Management (CAM) funding.

Justification:

- NATIONAL CAPITOL REGION - INTEGRATED AIR DEFENSE SYSTEM (NCR-IADS): FY2021 funds will include, but are not limited to, support hardware upgrades to seamlessly integrate new and emerging sensors, data, and technologies. Funds will be utilized for hardware upgrades and spares that do not qualify for Centralized Asset Management (CAM) funding, updated configurations of existing sites to match the modified baseline, and hardware to maintain the mandated cyber security posture and Authority to Operate (ATO) requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833030 / Battle Control System - Fixed
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>- BATTLE CONTROL SYSTEM MODERNIZATION: FY2021 funds will include, but are not limited to, support hardware upgrades to seamlessly integrate new and emerging sensors, data, and technologies. Funds will be utilized for hardware upgrades and spares that do not qualify for Centralized Asset Management (CAM) funding, updated configurations of existing sites to match the modified baseline, and hardware to maintain the mandated cyber security posture and Authority to Operate (ATO) requirements.</p> <p>- PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY2021 funds for PMA costs provide the management, engineering and technical support for the program office.</p> <p>- This funding request supports 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.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833040 / Theater Air Control Sys Improvemen

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207412F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	47.106	7.346	0.000	32.632	-	32.632	43.917	20.404	8.722	215.679	-	375.806
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	0.000
Net Procurement (P-1) (<i>\$ in Millions</i>)	47.106	7.346	0.000	32.632	-	32.632	43.917	20.404	8.722	215.679	-	375.806
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	47.106	7.346	0.000	32.632	-	32.632	43.917	20.404	8.722	215.679	-	375.806

(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:

CONTROL AND REPORTING CENTER (CRC)

The CRC is a mobile, ground-based theater air control system (TACS) surveillance and battle management command and control (BMC2) element. It is a customizable, modular, transportable, and persistent weapon system employed at the tactical level to support air and surface operations to provide direct command and control to all air assets in an assigned Area of Responsibility (AOR) and to report back to the Joint Force Air Combat Commander (JFACC). The CRC is a family of systems which include: AN/TYQ-23A(V)1 Tactical Air Operations Module (TAOM), AN/TSC-147, AN/TRC-213/214 Remote Radio Secure Voice System (RRSVS), and the AN/TPS-75 Radar, CRC's organic radar. Air Combat Command (ACC) CRC Capability Roadmap provides for the modernization of this family of systems and will be programmed into phased updates through 2037. Funding may be used to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

In order to meet warfighter requirements, the CRC will be modernized incrementally. These efforts are projected to begin in FY21: AN/TRC-213/214 RRSVS radio modernization production and European Defense Initiative (EDI).

Funding for this exhibit contained in PE 0207412F.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	9	0	9	-	-	-	-
	Total Obligation Authority	4.213	0.000	27.412	0.000	27.412	11.001	7.464	6.112	161.292
AFNG	Quantity	-	-	0	0	0	-	-	-	-
	Total Obligation Authority	3.133	-	5.220	0.000	5.220	7.860	12.940	2.610	54.387
AFR	Quantity	-	-	0	0	0	-	-	-	-
	Total Obligation Authority	-	-	0.000	0.000	0.000	-	-	-	-
Total:	Quantity	-	-	9	0	9	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs					P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0207412F			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	7.346	0.000	32.632	0.000	32.632	18.861	20.404	8.722	215.679

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833040 / Theater Air Control Sys Improvemen

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207412F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Theater Air Control System Improvement				- / 47.106	- / 7.346	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / CRC RRSVS RADIO MOD UPGRADE (Other)		A		- / -	- / -	- / -	- / 13.374	- / 0.000	- / 13.374
P-40a	Theater Air Control System Improvement				- / -	- / -	- / -	- / 19.258	- / -	- / 19.258
P-40	Total Gross/Weapon System Cost				- / 47.106	- / 7.346	- / 0.000	- / 32.632	- / -	- / 32.632

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Theater Air Control System Improvement				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 54.452
P-3a	1 / CRC RRSVS RADIO MOD UPGRADE (Other)		A		- / 18.861	- / 20.404	- / 8.722	- / 215.679	- / -	- / 277.040
P-40a	Theater Air Control System Improvement				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 43.917	- / 20.404	- / 8.722	- / 215.679	- / -	- / 375.806

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

This program, Theater Air Control Sys Improvemen P-40A Category European Defense Initiative Item Army Persistent Long-Range Surveillance Sensor, is a new start.
 This program, Theater Air Control Sys Improvemen P-40A Category European Defense Initiative Item MPQ-64F1 Sentinel Radar, is a new start.
 This program, Theater Air Control Sys Improvemen P-40A Category European Defense Initiative Item JADOC, is a new start.
 This program, Theater Air Control Sys Improvemen P-40A Category European Defense Initiative Item TORCC, is a new start.
 This program, Theater Air Control Sys Improvemen P-40A Category European Defense Initiative Item EO/IR Cameras, is a new start.
 This program, TACSI Mods, P-3A Mod CRC04, CRC RRSVS RADIO MOD UPGRADE, is a new start.

FY21 funding supports:

The purchase of radios that include upgraded software located in AN/TRC-213 (V) 3 that will operate with an upgraded AN/TRC-214. This will allow AN/TRC-214 to utilize the Mobile User Objective System (MUOS) constellation of satellites, support Integrated Waveform (IW), Second generation Anti-jam Tactical Ultra high frequency Radio for NATO (SATURN), Ensure sufficient channel capacity for remote radio interface, interoperability with required crypto equipment, combine channel inputs, enable operators to use J-voice, full IP capability, and allow for external VoIP/VoSIP connectivity.

The European Defense Initiative (EDI)to purchase the following hardware: a Joint Air Defense Operations Center (JADOC), Army Persistent Long-range Surveillance (APLS)Sensors, Theater Operationally Resilient C2 systems (TORCC), a MPQ-64F1 Sentinel Radar and EO/IR Cameras.

Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:

(a) FY 2022 Cost Delta: 25.056 million

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207412F
Line Item MDAP/MAIS Code: N/A		

(b) FY Total Cost Delta: 44.314 million

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3					P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen										Aggregated Modification Items Title: Theater Air Control System Improvement				

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CRC01 / CRC Phase 1			-	-	18.783	-	-	3.405	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	0.272		-	0.000		-	0.000		-	0.000		-	0.000
AFNG				-	-		-	3.133		-	0.000		-	0.000		-	-		-	0.000
TYQ23A / AN/TYQ23A OM MOD			-	-	28.323	-	-	3.941	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF				-	-		-	3.941		-	-		-	-		-	-		-	-
Total			-	-	47.106	-	-	7.346	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CRC01 / CRC Phase 1			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.188
<i>Secondary Distribution</i>																				
AF				-	0.000		-	-		-	-		-	-		-	-		-	-
AFNG				-	0.000		-	-		-	-		-	-		-	-		-	-
TYQ23A / AN/TYQ23A OM MOD			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.264
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		-	-		-	-		-	-
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	54.452

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
CRC01 / CRC Phase 1	CRCPhase1	Other
TYQ23A / AN/TYQ23A OM MOD	OMMOD	Other

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen	Modification Number / Title: 1 / CRC RRSVS RADIO MOD UPGRADE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679	-	277.040
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679	-	277.040
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679	-	277.040

(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:

This program, TACSI Mods, P-3A Mod CRC04, CRC RRSVS RADIO MOD UPGRADE, is a new start. Radios that include upgraded software located in AN/TRC-213 (V) 3 that will operate with an upgraded AN/TRC-214 will be purchased. This will allow AN/TRC-214 to utilize the Mobile User Objective System (MUOS) constellation of satellites, support Integrated Waveform (IW), Second generation Anti-jam Tactical Ultra high frequency Radio for NATO (SATURN), Ensure sufficient channel capacity for remote radio interface, interoperability with required crypto equipment, combine channel inputs, enable operators to use J-voice, full IP capability, and allow for external VoIP/VoSIP connectivity.

Milestone/Development Status

N/A

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	8.154	-	8.154	11.001	7.464	6.112	161.292
AFNG	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	5.220	-	5.220	7.860	12.940	2.610	54.387
Total:	-	-	-	-	-	-	-	-	-
Secondary Distribution	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen	Modification Number / Title: 1 / CRC RRSVS RADIO MOD UPGRADE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Models of Systems Affected: RRSVSRadioModernization	Modification Type: Other	Related RDT&E PEs: 0207412F
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Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: RRSVS Radio Modernization												
B Kits												
Recurring												
RRSVS Radio Modernization:EQUIPMENT Group B (Active)	- / -	- / -	- / -	2 / 4.980	- / -	2 / 4.980	1 / 2.500	- / -	- / -	- / -	- / -	3 / 7.480
RRSVS Radio Modernization:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	2 / 4.980	- / -	2 / 4.980	3 / 7.500	5 / 12.525	1 / 2.510	21 / 52.287	- / -	32 / 79.802
Subtotal: Recurring	- / -	- / -	- / -	- / 9.960	- / -	- / 9.960	- / 10.000	- / 12.525	- / 2.510	- / 52.287	- / -	- / 87.282
Subtotal: RRSVS Radio Modernization	- / -	- / -	- / -	- / 9.960	- / -	- / 9.960	- / 10.000	- / 12.525	- / 2.510	- / 52.287	- / -	- / 87.282
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / 9.960	- / -	- / 9.960	- / 10.000	- / 12.525	- / 2.510	- / 52.287	- / -	- / 87.282

Support (All Modification Items)

Type 1 Training	- / -	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1.000	- / -	- / 1.000
Change Orders	- / -	- / -	- / -	- / 0.760	- / -	- / 0.760	- / 1.466	- / 1.342	- / 1.162	- / 20.000	- / -	- / 24.730
Mod of Spares	- / -	- / -	- / -	- / 0.474	- / -	- / 0.474	- / 3.986	- / 3.409	- / 2.259	- / 120.000	- / -	- / 130.128
PMA - Other Gov't Costs	- / -	- / -	- / -	- / 1.700	- / -	- / 1.700	- / 2.929	- / 2.713	- / 2.691	- / 20.292	- / -	- / 30.325
Subtotal: Support	- / -	- / -	- / -	- / 2.934	- / -	- / 2.934	- / 8.381	- / 7.464	- / 6.112	- / 161.292	- / -	- / 186.183

Installation

Modification Item 1 of 1: RRSVS Radio Modernization												
Subtotal: Installation	- / -	- / -	- / -	4 / 0.480	- / -	4 / 0.480	4 / 0.480	5 / 0.415	1 / 0.100	21 / 2.100	- / -	35 / 3.575

Total												
Total Cost (Procurement + Support + Installation)	-	-	-	13.374	0.000	13.374	18.861	20.404	8.722	215.679	-	277.040

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833040 / Theater Air Control Sys Improvemen	Modification Number / Title: 1 / CRC RRSVS RADIO MOD UPGRADE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 1 of 1: RRSVS Radio Modernization

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Mar 2021	Nov 2021	Nov 2022	Nov 2023	Nov 2024
Delivery Dates			Jun 2021	Feb 2022	Feb 2023	Feb 2024	Feb 2025

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	4 / 0.480	- / -	4 / 0.480	- / -	- / -	- / -	- / -	- / -	4 / 0.480
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.480	- / -	- / -	- / -	- / -	4 / 0.480
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.415	- / -	- / -	- / -	5 / 0.415
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	- / -	- / -	1 / 0.100
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 2.100	- / -	21 / 2.100
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 0.480	- / -	4 / 0.480	4 / 0.480	5 / 0.415	1 / 0.100	21 / 2.100	- / -	35 / 3.575

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	5	-	-	-	1	-	-	-	21	-	0	35
Out	0	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	5	-	-	-	1	-	-	21	-	0	35

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833040 / Theater Air Control Sys Improvemen **Aggregated Items Title:** Theater Air Control System Improvement

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
European Defense Initiative																				
Army Persistent Long-Range Surveillance Sensor	B		-	-	-	-	-	-	-	-	1.200	2	2.400	-	-	-	1.200	2	2.400	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		2	2.400		-	-		2	2.400	
MPQ-64F1 Sentinel Radar	B		-	-	-	-	-	-	-	-	5.538	1	5.538	-	-	-	5.538	1	5.538	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		1	5.538		-	-		1	5.538	
JADOC	B		-	-	-	-	-	-	-	-	6.600	1	6.600	-	-	-	6.600	1	6.600	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		1	6.600		-	-		1	6.600	
TORCC	B		-	-	-	-	-	-	-	-	2.000	2	4.000	-	-	-	2.000	2	4.000	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		2	4.000		-	-		2	4.000	
EO/IR Cameras	B		-	-	-	-	-	-	-	-	0.240	3	0.720	-	-	-	0.240	3	0.720	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		3	0.720		-	-		3	0.720	
Subtotal: European Defense Initiative			-	-	-	-	-	-	-	-	-	-	19.258	-	-	-	-	-	19.258	
Total			-	-	-	-	-	-	-	-	-	-	19.258	-	-	-	-	-	19.258	

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

Remarks:
 The European Defense Initiative (EDI) will purchase the following hardware: a Joint Air Defense Operations Center (JADOC), Army Persistent Long-range Surveillance (APLS)Sensors, Theater Operationally Resilient C2 systems (TORCC), a MPQ-64F1 Sentinel Radar and EO/IR Cameras.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833070 / Weather Observation Forecast

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305111F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	18.342	52.113	31.447	33.021	-	33.021	32.730	35.270	33.902	34.522	-	271.347
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	18.342	52.113	31.447	33.021	-	33.021	32.730	35.270	33.902	34.522	-	271.347
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	18.342	52.113	31.447	33.021	-	33.021	32.730	35.270	33.902	34.522	-	271.347

(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:

PE 0305111F WEATHER SERVICE

The Weather Observation Forecast (WOF) procurement line acquires fixed-base and tactical meteorological equipment, ground-based space environment sensing systems, and information systems supporting the 2018 National Defense Strategy (NDS) lines of effort. WOF procurement also ensures a dependable environmental observing network which was identified as one of the key layers in Air Force Warfighting Integration Capability's (AFWIC) blueprint for the sensing grid that enables joint all-domain command and control (JADC2). This funding rebuilds readiness for a more lethal and resilient force by procuring and upgrading fixed and tactical equipment for observing and forecasting terrestrial and space environmental impacts in support of global AF, Army, and Special Operations forces and the Intelligence Community. Funding to procure and upgrade information systems to process, store, analyze and disseminate decision-grade weather information enables accurate prediction of environmental impacts to optimize mission planning and execution, targeting, weaponeering, and battle damage assessment and enhances the effectiveness and survivability of AF and Army weapon systems, precision munitions, and AF and government agency space systems. Alliances are strengthened through weather system technological upgrades to ensure critical interoperability with DoD, allies, and interagency partners in support of multi-domain combat operations. Funding for WOF also ensures greater performance and affordability through improvements to architecture and system efficiency as well as retirement of legacy equipment.

WOF activities align under four capability areas: 1) Weather Data Collection, 2) Weather Data Analysis and Dissemination, 3) Weather Forecasting, and 4) Product Tailoring/Warfighter Applications (PTWA). This alignment ensures an integrated and systems-oriented approach to program management decisions. Procurement funding for Terrestrial and Space Environment Observation Forecast is in Program Element (PE) 0305111F, Weather Service. In FY2021, procurement funding and activities aligned under PTWA will begin to transition to Weather Data Collection to better align data collection efforts. PTWA will only include RDT&E activities once this transition occurs.

1. Weather Data Collection Systems: Provides automated atmospheric and ground-based space environmental sensing capabilities at fixed and deployed locations worldwide. The data gathered by multiple sensor systems is exploited for environmental battlespace awareness, characterization, safety of flight, resource protection, and satellite anomaly assessments and impacts.

A. Observing System 21/AN/FMQ-23 provides automated weather observing systems both home station and deployed to collect weather elements for aviation surface weather reports. Program actions include but are not limited to the acquisition of new weather systems/sensors and the normalization to a standard weather sensing, modular open system architecture (MOSA) baseline comprised of fixed and tactical weather collection components. In FY2021, the FMQ-23 Observing System will begin a transition to a new Program of Record called Fixed-Base Weather Sensors that will combine the FMQ-23 Observing System along with several other fixed-based weather observing systems and sensor collection appliances (sensor collection appliances are currently aligned under PTWA) in order to create a common sensor baseline and consolidate contract maintenance costs.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833070 / Weather Observation Forecast
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305111F
Line Item MDAP/MAIS Code: N/A		

B. Ionospheric Ground Sensors (IGS)—IGS capital equipment replacement consists of fielding Next Generation Ionosonde (NEXION), Ionospheric Scintillation Total electron content Observer (ISTO), and other similar equipment. Data from IGS is transmitted via the unclassified DoD network, Non-Secure Internet Protocol Router Network (NIPRNet), to the Space Weather Analysis and Forecast System (SWAFS) at the 557th Weather Wing, Offutt AFB. The data is a critical input into real-time modeling that shows naturally occurring radio frequency (RF) interference impacts to High Frequency (HF) communications; HF and ground-based early warning radars; Ultra-High Frequency (UHF) satellite communications (SATCOM); position, navigation, and timing (PNT) services; and remotely piloted aircraft operations. NEXION is a commercial-off-the-shelf (COTS) vertical incidence low-power radar sensor that obtains measurements of the ionosphere from directly overhead in the high-frequency (HF) radio bands (2-30 MHz). ISTO is a world-wide network of ground-based, passive, multi-frequency COTS receivers that measure ionospheric scintillation and total electronic content in real-time by analyzing various satellite signals.

C. AN/TMS-2 Portable Doppler Radar (PDR)—PDR is a COTS weather radar that detects weather hazards, to include precipitation and wind threats. The PDR collects and delivers weather data to feed the production of weather warnings, watches, advisories, and other mission-essential weather products to support air and ground operations. PDR also provides machine learning (ML) algorithm training data in austere and data sparse areas for the Global Synthetic Weather Radar capability.

D. Next-Generation Radar (NEXRAD)--Tri-agency (National Weather Service, US Air Force and Federal Aviation Administration) program that manages 159 Doppler weather radars that provides networked radar data and products for flight operations and resource (personnel, facilities, and equipment) protection. The US Air Force owns 25 systems worldwide. Program actions include capital equipment replacement of components reaching end of life and a Service Life Extension Program which includes pedestal and shelter refurbishments.

E. AN/UMQ-13 Meteorological Data Station (MARK IV-B)--MARK IV-B provides warfighters tactical access to timely, accurate data from the latest generation of satellites and sensors to make mission critical decisions affecting the safety of personnel and equipment. MARK IV-B systems receive, process, display, store, and distribute interrogatable meteorological satellite (METSAT) information to operational users worldwide to support warfighter planning and execution via unclassified and classified networks. This system also provides cloud modeling and forecast validation data for the Air Force Weather Weapon System (AFWWS).

F. Solar Electro-Optical Network (SEON)—Consists of AN/FMQ-7 Solar Observing Optical Network (SOON) and Radio Solar Telescope Network (RSTN) which includes AN/FRR-95 Radio Interference Measuring Set (RIMS) and A/F24U-10 Solar Radio Spectrograph (SRS). SEON provides real time data on solar activity that interferes with radio frequency bands of satellites, radars, radio communications, and power grids. SEON has five sites located at Learmonth, Australia (SOON and RSTN); San Vito, Italy (SOON and RSTN); Kaena Point, HI (RIMS and SRS); Sagamore Hill, MA, (RIMS and SRS); and Holloman AFB, NM (SOON).

G. Expeditionary Weather--A scalable system of integrated components that provide weather sensing, forecasting, and communications capabilities aligning to Operational Plans and contingency Unit Type Codes (UTCs) for agile combat employment of weather Airmen and weather operations in support of the 2018 NDS.

2. Weather Data Analysis and Dissemination: Provides centralized, cybersecure Weather Web Service capability for integration into command and control systems, on-demand availability of weather impacts and products for the joint warfighter on all enclaves, specific mission-tailored weather data for global operations, and weapon system interoperability which shortens the Combatant Commander kill chain through machine to machine interfaces. The Weather Data Analysis and Dissemination capability area currently includes activities for Weather Data Analysis Increment 4 (WDA Inc-4, previously referred to as just WDA), WDA Increment 5 (WDA Inc-5), and WDA capital equipment replacement (CER). In FY2021 and beyond, procurement funding for WDA Inc-5 and WDA CER will be combined under WDA Inc-4. WDA Inc-5 is transitioning to encompass the AF Weather Virtual Private Cloud through sustainment and RDT&E funding. WDA CER activities will be accomplished and funded through the WDA Inc-4 program of record.

A. WDA Inc-4: Will continue towards achieving an open architecture following MOSA guidelines, providing an interoperable, flexible, responsive, expandable, and cost effective system in preparation for migration to an AF Enterprise Cloud Platform. MOSA facilitates easy "plug-and play" of Government off-the-shelf (GOTS) and COTS cyber-hardened hardware and software products, enabling server consolidation and the transition to cloud computing. WDA Inc-4 will operate on all security environments to ensure interoperability with AF, Army, and government agency programs, mission partners, and weapon systems. The WDA Inc-4 Ingest, Dissemination, and Enterprise Storage (IDES) project provides for storage and capability to move data between various storage devices in the Air Force Weather enterprise. Ingest services ensure data providers can present their data to designated storage, and Dissemination Services ensure data consumers have access to storage and/or the ability to move data to a location specified by the consumer. IDES services are on all security enclaves for Production, Test, and Development activities. All aspects of IDES are in the DoD approved architecture, bound by best cybersecurity practice principles, in an effort

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833070 / Weather Observation Forecast
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305111F
Line Item MDAP/MAIS Code: N/A		
<p>to meet security requirements, standardize, and eliminate one-off solutions, wherever possible. The IDES IV contract vehicle will address system enhancements from FY20-23 and will be used to retire End of Life/End of Service legacy equipment.</p> <p>3. Weather Forecasting System: Provides advanced scientific numerical weather prediction capabilities for automated, high-resolution forecast products for mission planning, rehearsal, and execution. Weather Forecasting includes activities for Numerical Weather Modeling (NWM).</p> <p>A. NWM--Provides warfighter with increased global environmental battlespace awareness for use in strategic, operational, and tactical mission planning, rehearsal, and execution through advanced scientific numerical weather prediction capabilities. Supports technology insertion/scientific improvements to AF weather analysis and forecasting capability with emphasis on clouds, theater-scale weather, and aerosol/chemical constituents. Provides improvements to specific weather capability gaps to Joint/AF mission areas, NDS focus areas, and provides forecast products to create advisories and warnings for DoD resource protection and support additional national defense missions and capabilities.</p> <p>4. PTWA: Provides timely, local and regional target-scale weather information to operational commanders within a given area of responsibility and at tactical levels provides front-line weather information to warfighters in support of combat operations. Supports the 'train as you fight' concept by assuring fixed and deployable systems have similar performance parameters and user interfaces. After FY2021, this capability area will only have RDT&E investment funding due to the new focus on development of applications, software, C2 systems, and web interface activities that were previously aligned under other programs of record. Procurement funding will transition to the Weather Data Collection Systems capability area to better align with investments with data collection efforts.</p> <p>A. Joint Environmental Toolkit (JET)--Provides a standard AF Weather forecaster toolkit to ingest weather data and deliver timely, tailorable, and precise weather impacts to the warfighter. JET is installed at 8 regional centers, 1 training center, and 154 tactical weather units. In FY2021, the JET Program of Record will be subsumed by a new program of record (name TBD) within the PTWA capability area. This new program will include applications, software, C2 systems, and web interfaces that support the joint warfighter and that were previously aligned in other programs of record.</p> <p>Funding for this exhibit is contained in PE 0305111F.</p> <p>Management services costs include Federally Funded Research and Development Centers and Advisory and Assistance Services.</p> <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
833070 / Weather Observation Forecast
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305111F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	FMQ-23		A		- / -	2 / 1.422	3 / 1.168	3 / 1.405	- / -	3 / 1.405
P-5	JET		B		- / -	- / 0.556	- / 3.774	- / 1.995	- / -	- / 1.995
P-40a	Weather Data Collection Systems				- / -	- / 16.074	- / 10.270	- / 11.428	- / -	- / 11.428
P-5	WDA Inc-4		B		- / -	- / 7.812	- / -	- / 15.329	- / -	- / 15.329
P-40a	WDA-CER				- / -	- / 17.227	- / 14.776	- / 0.000	- / -	- / 0.000
P-40a	WOF				- / 18.342	- / 9.022	- / 1.459	- / 2.864	- / 0.000	- / 2.864
P-40	Total Gross/Weapon System Cost				- / 18.342	- / 52.113	- / 31.447	- / 33.021	- / -	- / 33.021

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	FMQ-23		A		- / -	- / -	- / -	- / -	- / -	- / -
P-5	JET		B		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Weather Data Collection Systems				- / -	- / -	- / -	- / -	- / -	- / -
P-5	WDA Inc-4		B		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	WDA-CER				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	WOF				- / 1.146	- / 2.264	- / 0.537	- / 0.000	- / 0.000	- / 35.634
P-40	Total Gross/Weapon System Cost				- / 32.730	- / 35.270	- / 33.902	- / 34.522	- / -	- / 271.347

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

This program, Weather Observation Forecast P-40A Category Hardware - Hardware End Item Cost Item Expeditionary Weather, is a new start.

This program, Weather Observation Forecast P-40A Category Hardware - Hardware End Item Cost Item Expeditionary Weather.

This program, Weather Observation Forecast P-40A Category Hardware - Hardware End Item Cost Item Expeditionary Weather.

PE 0305111F WEATHER SERVICE

1. Weather Data Collection Systems:

A. Observing System 21/AN/FMQ-23: FY2021 funding will procure up to three FMQ-23 systems and additional sensor, communication and dissemination equipment for weather sensing at AF and Army installations; expeditionary airfields; and joint/coalition forces locations. These systems and sensors will ensure the continued delivery of observed weather conditions to the warfighter, compliance with cyber security requirements, and interoperability with JET. In FY2021, the FMQ-23 Observing System will begin transition to a new Program of Record called Fixed-Base Weather Sensors that will combine the FMQ-23

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833070 / Weather Observation Forecast
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305111F
Line Item MDAP/MAIS Code: N/A		
<p>Observing system along with several other fixed-base weather sensors and sensor collection appliances (sensor collection appliances are currently aligned under PTWA) in order to create a common sensor baseline and consolidate contract maintenance costs.</p> <p>B. IGS: FY2021 funding will provide 2 required NEXION site feasibility surveys, as well as procurement, installation and fielding of 4 ISTO sensors to support space environment forecasts for effects on military satellite communications and PNT. Additionally, funding will support opportunities to field state-of-the-art sensors that can improve coverage areas, efficiency, and characterization of ionospheric impacts to DoD and government agency communications. Funding will enable rapid response 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, etc.</p> <p>C. PDR: No FY2021 funding requested.</p> <p>D. MARK IV-B: FY2021 funding will provide software architecture maintenance which includes: maintenance of antenna, data feed, software, and hardware architecture vital to maintain MARK IV-B's ability to communicate with newer, state-of-the-art multinational satellites. Additionally, funding migrates MARK IV-B from Microsoft Server 2012 to Server 2019 to maintain cybersecurity compliance. New ingest server updates are also scheduled as part of this move to Server 2019 which will provide the warfighter forecasters (end-user) with updated and additional, relevant weather satellite sensor data. Funding also enables rapid response 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, etc.</p> <p>E. NEXRAD: FY2021 funding will continue Service Life Extension Program for pedestals and shelters. Other capital equipment replacement includes Radar Data Acquisition (RDA) / Radar Products Generator Power Administrators and RDA Local Area Network switches and console servers. This equipment incorporates technology to meet the latest cybersecurity and environmental standards and addresses obsolescence.</p> <p>F. SEON: FY2021 funding will fund the replacement of 2 antenna pedestals. Due to aging RSTN pedestals, SEON sites are increasingly less reliable to provide critical solar data to warfighters and DoD agencies that require the data for military operations and communications. Funding enables rapid response 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, etc.</p> <p>G. Expeditionary Weather: FY2021 funding will begin the initial, limited fielding of a scalable system of integrated components that provide tactical weather sensing, forecasting, and communications capabilities in communication-degraded environments. System requirements align to Operational Plans and contingency Unit Type Codes (UTCs) for deployed weather Airmen and weather operations support to the joint warfighter. Funding enables rapid fielding in response to AF expeditionary operations needs highlighted in the 2018 NDS. Expeditionary Weather is a new start for FY2021.</p> <p>2. Weather Data Analysis and Dissemination:</p> <p>A. WDA Inc-4: FY2021 funding will refresh computer hardware and associated integration software, improve architecture efficiencies, continue Cross Domain Solution efforts, provide net-centric delivery of data to the warfighter, and refresh information technology infrastructure in all security enclaves while the new AF Weather Enterprise Cloud Platform is established. Funding the refresh of hardware, software, and security components are critical during this fiscal year as the transition to cloud computing operations occurs in order to ensure the uninterrupted capability to ingest, process, store, access, and disseminate meteorological and space weather data to the warfighter. Procurement funding for FY2020 and beyond previously aligned to WDA Inc-5 and WDA CER has been re-aligned to WDA Inc-4.</p> <p>3. Weather Forecasting:</p> <p>A. NWM: FY2021 funding includes but is not limited to procurement of additional storage for the High Performance Computing (HPC) System 11 at Oak Ridge National Lab and continued hardware procurement to support exploitation of new meteorological satellite data sources for NWM.</p> <p>4. PTWA:</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833070 / Weather Observation Forecast
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305111F
Line Item MDAP/MAIS Code: N/A		
<p>A. JET: FY2021 funding will purchase two additional Sensor Collection Appliances (SCAs) and conduct phase one of the technical refresh of the approximately 160 fielded SCAs to ensure timely collection of weather intelligence from the battlespace. Additionally, in FY2021, the JET Program of Record will be subsumed by a new program of record (name TBD) that is within the PTWA capability area and will be comprised of RDT&E funding only. This new program will include applications, software, C2 systems, and web interfaces that support the joint warfighter and that were previously aligned in other programs of record. Procurement and refresh of SCAs will migrate to the new Fixed-Based Weather Systems program of Record.</p> <p>Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:</p> <ul style="list-style-type: none">(a) FY 2022 Cost Delta: 31.584 million(b) FY 2023 Cost Delta: 33.006 million(c) FY 2024 Cost Delta: 33.365 million(d) FY 2025 Cost Delta: 34.522 million(e) FY Total Cost Delta: 235.713 million		

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Exhibit P-5, Cost Analysis: PB 2021 Air Force											Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833070 / Weather Observation Forecast						Item Number / Title [DODIC]: FMQ-23				
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:					
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total		
Procurement Quantity (Units in Each)				-	2	3	3	-	3	-	3	-	-	3		
Gross/Weapon System Cost (\$ in Millions)				-	1.422	1.168	1.405	-	-	-	-	-	-	1.405		
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-	-	-	-	-	-		
Net Procurement (P-1) (\$ in Millions)				-	1.422	1.168	1.405	-	-	-	-	-	-	1.405		
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-	-	-	-	-	-		
Total Obligation Authority (\$ in Millions)				-	1.422	1.168	1.405	-	-	-	-	-	-	1.405		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																
Initial Spares (\$ in Millions)				-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Millions)				-	0.711	0.389	0.468	-	-	-	-	-	-	0.468		

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
FMQ-23	-	-	-	0.250	2	0.500	0.250	2	0.500	0.250	3	0.750	-	-	-	0.250	3	0.750
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.500	-	-	0.500	-	-	0.750	-	-	-	-	-	0.750
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	0.500	-	-	0.500	-	-	0.750	-	-	-	-	-	0.750
Support - Support End Item Cost																		
TESTING FMQ-23	-	-	-	-	-	0.045	-	-	0.023	-	-	0.046	-	-	-	-	-	0.046
INTERIM CONTRACTOR SUPPORT LABOR FMQ-23	-	-	-	-	-	0.079	-	-	0.000	-	-	-	-	-	-	-	-	-
DIRECT MISSION SUPPORT CONTRACTOR SERVICES FMQ-23	-	-	-	-	-	0.309	-	-	0.250	-	-	0.217	-	-	-	-	-	0.217
PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES FMQ 23	-	-	-	-	-	0.382	-	-	0.328	-	-	0.292	-	-	-	-	-	0.292
PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES FMQ 23	-	-	-	-	-	0.107	-	-	0.067	-	-	0.100	-	-	-	-	-	0.100
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.922	-	-	0.668	-	-	0.655	-	-	-	-	-	0.655

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Exhibit P-5, Cost Analysis: PB 2021 Air Force												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833070 / Weather Observation Forecast						Item Number / Title [DODIC]: FMQ-23					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	0.711	2	1.422	0.389	3	1.168	0.468	3	1.405	-	-	-	0.468	3	1.405

Remarks:

Note: Actual number of systems procured will be dependent on location and site requirements.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833070 / Weather Observation Forecast	Item Number / Title [DODIC]: JET
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.556	3.774	1.995	-	1.995
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.556	3.774	1.995	-	1.995
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.556	3.774	1.995	-	1.995

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - JET Cost																		
Recurring Cost																		
JET EQUIPMENT LIFE CYCLE REPLACEMENT	-	-	-	-	-	0.386	-	-	3.606	-	-	1.820	-	-	-	-	-	1.820
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.386	-	-	3.606	-	-	1.820	-	-	-	-	-	1.820
<i>Subtotal: Hardware - JET Cost</i>	-	-	-	-	-	0.386	-	-	3.606	-	-	1.820	-	-	-	-	-	1.820
Support - JET Cost																		
PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES JET	-	-	-	-	-	0.070	-	-	0.074	-	-	0.077	-	-	-	-	-	0.077
PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES JET	-	-	-	-	-	0.100	-	-	0.094	-	-	0.098	-	-	-	-	-	0.098
<i>Subtotal: Support - JET Cost</i>	-	-	-	-	-	0.170	-	-	0.168	-	-	0.175	-	-	-	-	-	0.175
Gross/Weapon System Cost	-	-	-	-	-	0.556	-	-	3.774	-	-	1.995	-	-	-	-	-	1.995

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast **Aggregated Items Title:** Weather Data Collection Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																				
IGS	A		-	-	-	0.185	2	0.370	0.185	2	0.370	0.060	4	0.240	-	-	-	0.060	4	0.240
Portable Doppler Radar	A		-	-	-	0.682	11	7.500	-	-	-	-	-	-	-	-	-	-	-	-
MARK IV-B	A		-	-	-	1.179	1	1.179	1.430	1	1.430	3.331	1	3.331	-	-	-	3.331	1	3.331
NEXRAD	A		-	-	-	-	-	2.151	-	-	2.210	-	-	1.964	-	-	-	-	-	1.964
SEON	A		-	-	-	1.200	1	1.200	3.000	1	3.000	3.030	1	3.030	-	-	-	3.030	1	3.030
Expeditionary Weather	A		-	-	-	-	-	-	-	-	-	-	-	1.415	-	-	-	-	-	1.415
Subtotal: Hardware - Hardware End Item Cost			-	-	-	-	-	12.400	-	-	7.010	-	-	9.980	-	-	-	-	-	9.980
Support - Support End Item Cost																				
INSTALLATION IGS	A		-	-	-	1.837	2	3.674	1.630	2	3.260	0.362	4	1.448	-	-	-	0.362	4	1.448
ASSISTANCE AND ADVISORY SERVICE A&AS	A		-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Support End Item Cost			-	-	-	-	-	3.674	-	-	3.260	-	-	1.448	-	-	-	-	-	1.448
Total			-	-	-	-	-	16.074	-	-	10.270	-	-	11.428	-	-	-	-	-	11.428

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

Remarks:
Expeditionary Weather is a New Start in FY2021.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833070 / Weather Observation Forecast	Item Number / Title [DODIC]: WDA Inc-4

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	7.812	-	15.329	-	15.329
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	7.812	-	15.329	-	15.329
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	7.812	-	15.329	-	15.329

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - WDA Inc-4 Cost																		
Non Recurring Cost																		
Hardware-Weather Service Cost	-	-	-	-	-	7.608	-	-	-	-	-	15.154	-	-	-	-	-	15.154
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	7.608	-	-	-	-	-	15.154	-	-	-	-	-	15.154
<i>Subtotal: Hardware - WDA Inc-4 Cost</i>	-	-	-	-	-	7.608	-	-	-	-	-	15.154	-	-	-	-	-	15.154
Support - WDA Inc-4 Cost																		
PROGRAM MANAGEMENT ADMINISTRATION CONTRACTOR SERVICES	-	-	-	-	-	0.062	-	-	-	-	-	0.020	-	-	-	-	-	0.020
PROGRAM MANAGEMENT ADMINISTRATION OTHER GOVERNMENT SERVICES	-	-	-	-	-	0.142	-	-	-	-	-	0.155	-	-	-	-	-	0.155
<i>Subtotal: Support - WDA Inc-4 Cost</i>	-	-	-	-	-	0.204	-	-	-	-	-	0.175	-	-	-	-	-	0.175
Gross/Weapon System Cost	-	-	-	-	-	7.812	-	-	-	-	-	15.329	-	-	-	-	-	15.329

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast **Aggregated Items Title:** WDA-CER

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware																				
Capital Equipment Replacement	A		-	-	-	-	-	17.227	-	-	14.612	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Hardware			-	-	-	-	-	17.227	-	-	14.612	-	-	0.000	-	-	-	-	-	0.000
Support																				
Program Management Administration Contractor Services	A		-	-	-	-	-	0.000	-	-	0.019	-	-	0.000	-	-	-	-	-	0.000
Program Management Administration Other Government Services	A		-	-	-	-	-	0.000	-	-	0.145	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support			-	-	-	-	-	0.000	-	-	0.164	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	17.227	-	-	14.776	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:

FY2021 and beyond funding from WDA Inc-5 has been re-aligned to WDA Inc-4 to account for required hardware refreshes and to buy down risk inherent in the cloud migration. WDA Inc-5 funding will be focused on cloud platform transition and software integration.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833070 / Weather Observation Forecast **Aggregated Modification Items Title:** WOF

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
WOF2 / Numerical Weather Modeling (NWM)			-	-	18.342	-	-	9.022	-	-	1.459	-	-	2.864	-	-	-	-	-	2.864
Total			-	-	18.342	-	-	9.022	-	-	1.459	-	-	2.864	-	-	0.000	-	-	2.864

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
WOF2 / Numerical Weather Modeling (NWM)			-	-	1.146	-	-	2.264	-	-	0.537	-	-	-	-	-	-	-	-	35.634
Total			-	-	1.146	-	-	2.264	-	-	0.537	-	-	0.000	-	-	0.000	-	-	35.634

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
WOF2 / Numerical Weather Modeling (NWM)	NWM	Capability Improvement

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833140 / Strategic Command And Control

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0301112F, 0304115F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	32.836	5.090	31.353	-	31.353	42.798	15.290	11.432	11.574	-	150.373
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	32.836	5.090	31.353	-	31.353	42.798	15.290	11.432	11.574	-	150.373
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	32.836	5.090	31.353	-	31.353	42.798	15.290	11.432	11.574	-	150.373

(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:

PE 0101127F B-2 Squadrons - P-40A

B-2 SUPPORT: The B-2 weapon system relies heavily on C2 equipment to meet its operational capability. Funding is used to replace obsolete computer equipment, backbone infrastructure hardware and software, and long haul communications equipment at the Weapon System Support Center (WSSC) Ground Test Facility (GTF), and contractor laboratories. This includes COTS items such as computers, displays, printers, disk and tape drives, software (e.g. computer-aided design (CAD) and analysis software) as well as engineering and logistical support. Funds also procure specialized computers that provide on-line access to B-2 aircraft data and low observable analysis capabilities. Unique B-2 security and communication infrastructure needs are also addressed.

The B-2 Weapon System Support Center (WSSC) Ground Test Facility (GTF), located at Oklahoma Air Logistics Center, Tinker AFB, OK, supports two critical functions: aircraft software development and maintenance/support, plus systems engineering support for the fielded weapon system. Software maintenance fixes to aircraft systems include flight controls, flight management, navigation systems, weapons/armament and the defensive management system. These software fixes are accomplished and tested with the use of the WSSC software development system and integration/test laboratory complex by analyzing and designing fixes to the existing aircraft software. The WSSC GTF also provides engineering support with specialized computer systems that provide online access to B-2 aircraft data. This data consists of items such as engineering and organic low observable analysis, manufacturing, aircraft design data used to help solve technical issues on the B-2. Locations where this data is used include Tinker AFB, Whiteman AFB, Wright-Patterson AFB, Northrop-Grumman in Palmdale, CA and forward operating locations (FOL).

PE 0101316F Worldwide Joint Strategic Communications - P-40A

Emergency Action Messages (EAMs) are highly structured, authenticated messages primarily used in the command and control of nuclear forces. They are disseminated over numerous survivable and non-survivable communication systems including terrestrial and space systems. Programmed funds procure system components, spares, software, and necessary support services for systems such as the Strategic Automated Command and Control System (SACCS), Phoenix Air-to-Ground Communication Network (PAGCN), Defense Injection Reception Emergency Action Message (EAM) C2 Terminals (DIRECT), Aircrew Alerting Communications Electromagnetic Pulse (AACE), the Strategic Emergency Action Transmission System (SEATS), and the Defense Red Switch Network (DRSN).

SACCS is a secure Nuclear Command, Control, and Communications (NC3) system that directly supports National Command Authority (NCA) communications in the command and control of strategic and non-strategic forces. SACCS enables the NCA to disseminate Higher Authority Command Messages, Force Direction Messages, EAMs, and automated ICBM re-targeting data to the USAF's two legs (ICBM and bomber fleets) of the nuclear triad; the reconnaissance, tanker, USAF munitions, and Special Operations communities; and to other Active Duty, Guard, and Reserve DoD users worldwide.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833140 / Strategic Command And Control
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0301112F, 0304115F
Line Item MDAP/MAIS Code: N/A		

DIRECT includes the hardware and software to enable the NCA to transmit nuclear and non-nuclear EAMs and other time-critical messages to strategic and non-strategic forces. The equipment requested is representative of those items capable of providing the required operational capability. The specific items procured may vary depending upon available technology at the time of procurement. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

PAGCN is a critical component of the Senior Leadership Command, Control and Communications System (SLC3S) that extends terrestrial Defense Information Systems Network (DISN) connectivity via an air-to-ground line-of-sight (LoS) communications path to select Airborne and Ground Mobile platforms, and provides an air-to-air LoS communications path between PAGCN-equipped platforms. The FY2018 NDAA directed the transfer of the PAGCN program from the Defense Information Systems Agency (DISA) to the Air Force Program Executive Office for Nuclear Command, Control and Communications (AFPEO NC3). Additional information can be provided at higher classification levels.

Development funding for this exhibit contained in PE 0101316F.

PE 0208059F Service Support to Other Core Missions - CYBERCOM Activities - P-40A

US Cyber Command (USCYBERCOM) Cyberspace Situational Awareness (SA) capabilities provides Combatant Commands the ability to detect anomalies within friendly networks, and to link cyber key terrain to cyber and kinetic mission needs and timelines. FY18 is the last year of funding for Cyber SA.

PE 0301112F Nuclear Planning and Execution System (NPES) - P-40A

NUCLEAR PLANNING AND EXECUTION SYSTEM (NPES): NPES is a National C2 automated information system (AIS) that supports all phases of nuclear conflict. The requirement includes all facets of Cyber investments as it relates NPES Legacy enhancements, test, communication systems and operational server integration with fixed command centers, distributed sites, and mobile platforms. NPES Legacy is a joint program, with the Air Force assigned lead service responsibilities. All NPES funding covers current and future cyber related investments necessary for a successful operational application/system delivery, for fixed command centers, distributive sites and mobile platforms. Funding for this effort is in program element 0301112F.

Funding supports cyber investments for all NPES environment suites, as well as the 4th Generation Servers supporting the mobile platform environments. NPES cyber investments include procurement supporting communications equipment, operational sites, and PMA contractor support for equipment purchases, sustainment activities, and security certifications. These cyber investments will be accomplished by command supported contracts as well as Defense Microelectronics Activity (DMEA) supporting airborne enhancements. Funding for this effort is in program element 0301112F.

PE 0303255F Command, Control, Communication, and Computers (C4) - STRATCOM - P-40A

SERVICE SUPPORT TO USSTRATCOM - C4:

a. USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT: This effort provides the C2 infrastructure and hardware to acquire, process, and deliver information, as needed, to enhance decision making for USSTRATCOM. This effort employs a set of underlying information services, technologies, and tools that enable the Commander of USSTRATCOM to achieve broad operational warfighting capabilities. The effort adds capability as it builds to a final architecture. The architecture is a collection of distributed databases and applications, integrated through a grid of supporting services. This effort was previously referred to as "C2 Modernization and is NOT a new start.

FY19 is last year of funding in this PE/WSC. Funding FY20 and beyond will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160F, PE 0101301F

b. ANALYSIS AND TARGETING - JOINT WARFARE ANALYSIS CENTER (JWAC): effort provides the hardware that enables the JWAC to develop and recommend strategic technical solutions. JWAC coordinates directly with the staffs of all Department of Defense (DoD) elements, Combatant Commands, military services, and other government departments and agencies to respond to crises.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833140 / Strategic Command And Control
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0301112F, 0304115F
Line Item MDAP/MAIS Code: N/A		
<p>FY19 is last year of funding in this PE/WSC. Funding FY20 and beyond will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160F, PE 0101301F</p> <p>c. FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT: Provides a decision support system and is designed to provide the commander with Force Management (pre attack) and Force Survival (post attack) information needed to ensure survival of strategic forces. Provides the commander vital decision making data by correlating strategic force status reported by Force Status Reporting (FSR) with missile attack warning information. Processing and Display Subsystem - Migration (PDS-M) will continue to provide the commander with missile attack warning information</p> <p>FY19 is last year of funding in this PE/WSC. Funding FY20 and beyond will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160F, PE 0101301F</p> <p>d. GLOBAL DISTRIBUTED COMMAND AND CONTROL (GDC2): Detailed information is classified and will be provided on a need to know basis. For further information please contact the Strategic C2 Systems Branch (SAF/AQID) at (202) 404-3405.</p> <p>e. USSTRATCOM REPLACEMENT FACILITY FIT-OUT: No funding in FY20 and out</p> <p>PE 0101301F - USSTRATCOM Information Technology Enterprise</p> <p>The USSTRATCOM COMMAND AND CONTROL FACILITY (C2F) IT Enterprise will incorporate all facets of the requirements previously reported within PE 0303255F, USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT (old C2 Modernization), ANALYSIS AND TARGETING, and FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT(FSAM). The USSTRATCOM REPLACEMENT FACILITY FIT-OUT program does not have funding in FY20. All programs and systems will now ride on the enterprise infrastructure. The GDC2 program will continue to be reported under PE 0303255F and treated separately. This is not a new start.</p> <p>USSTRATCOM IT Enterprise - This effort provides the Command and Control infrastructure and hardware to acquire, process, and deliver information, as needed, to enhance decision making for USSTRATCOM. USSTRATCOM is tasked with vital roles for our nation. These roles require a secure and survivable infrastructure. This effort employs a set of underlying information services, technologies, and tools to ensure the standard configuration of information technology architecture. The enterprise architecture is a collection of distributed databases and applications, integrated through a cloud-based infrastructure. The facility includes features and capabilities such as secure High-Altitude Electromagnetic Pulse (HEMP) Shielded Command and Control Center, Installation Processing Node, multiple 24/7 mission operations centers, storage and maintenance areas, labs/workrooms, backup generators, Uninterruptible Power Source, and Technical Control Facility.</p> <p>PE 0304115F Multi Domain Command and Control (MDC2), also known as Joint All Domain Command and Control (JADC2) - P-40A</p> <p>Future of warfare requires Joint All-Domain Command and Control (JADC2) powered by the Advanced Battle Management family of Systems (ABMS) and digital modernization. ABMS is the technological underpinning of JADC2 operations and readiness. Through ABMS technology, JADC2 operations moves from a platform-centric approach (trucks) to a network-centric approach (highways) that will connect the right sensor to the right node to the right shooter regardless of domain to achieve rapid, artificial intelligence (AI) enabled decision making and effects.</p> <p>Funding procures non-developmental components, parts, materials or end items to support JADC2 activities. Funding supports, but is not limited to, various interdependent JADC2 activities: requirements/ outputs of the Advanced Battle Management system (ABMS) 4 month On Ramp demos or independent developments, procurement for the Shadow Operations Center at Nellis, AFB, and Sensing Grid requirements. This is not a new start.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833140 / Strategic Command And Control

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0301112F, 0304115F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	B-2 Squadrons				- / -	- / 0.516	- / 0.524	- / 0.532	- / -	- / 0.532
P-40a	Worldwide Joint Strategic Communications				- / -	- / 2.979	- / 0.300	- / 24.520	- / -	- / 24.520
P-40a	Nuclear Planning and Execution System (NPES)				- / -	- / 2.278	- / 2.266	- / 1.356	- / -	- / 1.356
P-40a	Command, Control, Communication, and Computers (C4) - STRATCOM				- / -	- / 27.063	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a	Multi Domain Command and Control (MDC2)				- / -	- / 0.000	- / 2.000	- / 4.945	- / -	- / 4.945
P-40	Total Gross/Weapon System Cost				- / -	- / 32.836	- / 5.090	- / 31.353	- / -	- / 31.353

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0101127F B-2 Squadrons - P-40A

Funding continues the replacement of obsolete computer equipment, backbone infrastructure hardware and software, and long haul communications equipment at the Weapon System Support Center (WSSC) Ground Test Facility (GTF) and contractor software laboratories. Hardware and software purchased include COTS items such as uninterruptible power supplies, computers, displays, printers, disk and tape drives, software and installation and support services.

PE 0101316F Worldwide Joint Strategic Communications - P-40A

- a. Defense Injection/Reception Emergency Action Message Command and Control Terminal (DIRECT):
 - FY19 PB funds (\$2.979M) will be used for the installation of (1) DIRECT terminal in support of EUCOM
 - FY20 PB funds (\$0.300M) will be used for DIRECT/NC3 architecture upgrades & support
 - FY21 PB funds (\$1.979M) will be used for DIRECT/NC3 architecture upgrades & support

- b. Phoenix Air-to-Ground Communication Network (PAGCN):
 - FY21 PB funds (\$22.574M) will be used to build the PAGCN capability to the level required by the Joint Requirements Oversight Council (JROC)-validated Capability Production Document (CPD). Additional information can be provided at higher classification levels.

PE 0208059F Service Support to Other Core Missions - CYBERCOM Activities - P-40A

FY18 supports fielding Cyberspace Situational Awareness EOA Phase I to three combatant commands (USSOUTHCOM, USSOCOM, PACOM).

PE 0303255F Command, Control, Communication, and Computers (C4) - STRATCOM - P-40A

- a. USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT: FY 20 begins transition to the USSTRATCOM IT Enterprise construct
- b. ANALYSIS AND TARGETING - JOINT WARFARE ANALYSIS CENTER (JWAC): FY 20 begins transition to the USSTRATCOM IT Enterprise construct

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833140 / Strategic Command And Control
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0301112F, 0304115F
Line Item MDAP/MAIS Code: N/A		
<p>c. FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT (FSAM). FY 20 begins transition to the USSTRATCOM IT Enterprise construct</p> <p>d. GLOBAL DISTRIBUTED COMMAND AND CONTROL (GDC2): Detailed information is classified and will be provided on a need to know basis. For further information please contact the Strategic C2 Systems Branch (SAF/AQID) at (202) 404-3405.</p> <p>e. USSTRATCOM REPLACEMENT FACILITY FIT-OUT: USSTRATCOM Replacement Facility: NO funding in FY20 and out.</p> <p>f. PE 0101301F - USSTRATCOM Information Technology Enterprise...consists of 6 major efforts:</p> <ol style="list-style-type: none"> 1. Installation Process Node Hardware Lifecycle Management - Equipment delivers cloud-based Infrastructure as a Service (IaaS) server core capabilities. Virtual Desktop Infrastructure (VDI) server resource management includes access control and lifecycle management. 2. Computer Network Defense - Security operations will begin lifecycle technical refresh of hardware to enable the monitoring, protection, analysis, and detection of malicious activities affecting USSTRATCOM Enterprise IT architecture and component subscriber enterprises 3. Network/Communications Hardware Updates - FY20 starts equipment updates for network administration and control devices for the USSTRATCOM enterprise networks and Internet control 4. Client Infrastructure Hardware Updates - Lifecycle technical refresh will begin on end user computing input/output devices and peripherals. 5. Audio Visual/Video Tele-Conferencing (VTC) Hardware Updates -Technical refresh of audio visual equipment includes audio visual control room equipment, classified and unclassified telephony, digital signage, VTC and audio conferencing capabilities 6. COOP Capabilities - In FY20 USSTRATCOM will build a continuity of operations capability to host mission critical systems and applications at an off-site location. <p>Specific items procured during execution may change based on commercial availability and critical equipment needed to support current mission requirements.</p> <p>PE 0304115F Multi Domain Command and Control (MDC2) - P-40A</p> <p>Funds will support procurement of components, parts, materials or end items to support JADC2 activities. Funding supports, but is not limited to, various interdependent JADC2 activities: requirements/outputs of the Advanced Battle Management system (ABMS) 4 month On Ramp demos or independent developments, procurement for the Shadow Operations Center at Nellis, AFB, and Sensing Grid requirements.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833140 / Strategic Command And Control **Aggregated Items Title:** B-2 Squadrons

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
B-2 Weapon System Support Center (WSSC) Hardware	A		-	-	-	-	-	0.516	0.524	1	0.524	0.532	1	0.532	-	-	-	0.532	1	0.532
Subtotal: Uncategorized			-	-	-	-	-	0.516	-	-	0.524	-	-	0.532	-	-	-	-	-	0.532
Total			-	-	-	-	-	0.516	-	-	0.524	-	-	0.532	-	-	-	-	-	0.532

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3					P-1 Line Item Number / Title: 833140 / Strategic Command And Control										Aggregated Items Title: Worldwide Joint Strategic Communications				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
Defense Injection/ Reception Emergency Action Message Command and Control Terminal (DIRECT) System	A		-	-	-	-	-	2.979	-	-	0.300	-	-	1.946	-	-	-	-	-	1.946
Strategic Automated Command Control Systems (SACCS)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phoenix Air-to-Ground Communication Network (PAGCN)	A		-	-	-	-	-	-	-	-	-	-	-	22.574	-	-	-	-	-	22.574
Subtotal: Uncategorized			-	-	-	-	-	2.979	-	-	0.300	-	-	24.520	-	-	-	-	-	24.520
Total			-	-	-	-	-	2.979	-	-	0.300	-	-	24.520	-	-	-	-	-	24.520

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

Remarks:

DIRECT:

- FY19 PB funds (\$2.979M) will be used for the installation of (1) DIRECT terminal in support of EUCOM
- FY20 PB funds (\$0.300M) will be used for DIRECT/NC3 architecture upgrades & support
- FY21 PB funds (\$1.979M) will be used for DIRECT/NC3 architecture upgrades & support

PAGCN:

- FY21 PB funds (\$22.574M) will be used to build the PAGCN capability to the level required by the Joint Requirements Oversight Council (JROC)-validated Capability Production Document (CPD). Additional information can be provided at higher classification levels.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833140 / Strategic Command And Control	Aggregated Items Title: Nuclear Planning and Execution System (NPES)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Nuclear Planning and Execution System (PE 31112)																				
Ruggedized Equipment, E-4B, E-6B, (includes GFE, NRE, Installs, etc.)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operational Sites Life Cycle Replacement -- Turn-Key Systems (SUN/Windows Servers, Storage, Clie...	A		-	-	-	-	-	1.896	1	1.896	-	-	-	-	-	-	-	-	-	-
Test-System Life Cycle Replacement (SUN/Windows Servers, Storage, Clients, etc)	A		-	-	-	1.944	1	1.944	-	-	-	-	-	-	-	-	-	-	-	-
DEV-System Life Cycle Replacement (X86 Blade Servers, Storage, Switches, Clients, etc)	A		-	-	-	-	-	0.000	0.185	2	0.370	-	-	-	-	-	-	-	-	-
Communication Life Cycle Replacement -- Turn-Key Systems (Servers, Storage, Clients, etc.)	A		-	-	-	-	-	-	-	-	-	0.271	5	1.356	-	-	-	0.271	5	1.356
Subtotal: Nuclear Planning and Execution System (PE 31112)			-	-	-	-	-	1.944	-	-	2.266	-	-	1.356	-	-	-	-	-	1.356
Program Management Administration																				
Systems Operations	A		-	-	-	0.334	1	0.334	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Program Management Administration			-	-	-	-	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	2.278	-	-	2.266	-	-	1.356	-	-	-	-	-	1.356

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3							P-1 Line Item Number / Title: 833140 / Strategic Command And Control							Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
0032																				
NPES - Ruggedized Equipment, E-4B, E-6B	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NPES - Operational Site Life Cycle Replacement	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2 LAN Infrastructure (C2 Modernization)	A		-	-	-	3.219	1	3.219	-	-	-	-	-	-	-	-	-	-	-	-
NPES - Comm System (SMART NEXT Turn-Key System)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass Storage Devices [Secret, TS], (C2 Modernization)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUN/Windows servers, storage, clients etc (C2 Modernization)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Operations Center (GOC) Hardware, (C2 Modernization)	A		-	-	-	3.300	1	3.300	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Infrastructure and LAN Hardware, [Classified], (C2 Modernization)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Analysis and Targeting Systems, (C2 Modernization)	A		-	-	-	0.081	1	0.081	-	-	-	-	-	-	-	-	-	-	-	-
FSAM - Modernization Procurement	A		-	-	-	2.047	1	2.047	-	-	-	-	-	-	-	-	-	-	-	-
Global Distributed Command and Control (GDC2)	A		-	-	-	1.799	1	1.799	-	-	-	-	-	-	-	-	-	-	-	-
Global Distributed Command and Control (GDC2 - Classified)	A		-	-	-	0.508	1	0.508	-	-	-	-	-	-	-	-	-	-	-	-
New Bldg Fit Out - Fiber Ring	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Bldg Fit Out - Transition Infrastructure	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833140 / Strategic Command And Control						Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
New Bldg Fit Out - Premise Wiring	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Electronic Security Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Network / Communications systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Server / Client / Data systems hardware	A		-	-	-	4.850	1	4.850	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Audio Visual / VTC systems hardware	A		-	-	-	9.103	1	9.103	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Mission Systems hardware	A		-	-	-	2.156	1	2.156	-	-	-	-	-	-	-	-	-	-	-	
New Bldg Fit Out - Technical Control Facility hardware / Relocation	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
USSTRATCOM IT Enterprise	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	
Subtotal: 0032			-	-	-	-	-	27.063	-	-	0.000	-	-	0.000	-	-	-	-	0.000	
Total			-	-	-	-	-	27.063	-	-	0.000	-	-	0.000	-	-	-	-	0.000	

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

Remarks:

In FY20 the C2 Facility Fit-Out project has no funding. Last year of Procurement funding was FY19.

Beginning in FY20 the USSTRATCOM IT Enterprise Construct is adapted - PE 11301F, BPAC 835160

The C2 Mod, FSAM, and JWAC programs will now be reported under the C2 IT Enterprise program

PE 0101301F - USSTRATCOM Information Technology Enterprise...consists of 6 major efforts:

- a. Installation Process Node Hardware Lifecycle Management - Equipment delivers cloud-based Infrastructure as a Service (IaaS) server core capabilities. Virtual Desktop Infrastructure (VDI) server resource management includes access control and lifecycle management.
- b. Computer Network Defense - Security operations will begin lifecycle technical refresh of hardware to enable the monitoring, protection, analysis, and detection of malicious activities affecting USSTRATCOM and component subscriber enterprises
- c. Network/Communications Hardware Updates - FY20 starts equipment updates for network administration and control devices for the USSTRATCOM enterprise networks and Internet control sharing systems

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833140 / Strategic Command And Control	Aggregated Items Title: Command, Control, Communication, and Computers (C4) - STRATCOM

- d. Client Infrastructure Hardware Updates - Lifecycle technical refresh will begin on end user computing input/output devices and peripherals.
- e. Audio Visual/Video Tele-Conferencing (VTC) Hardware Updates -Technical refresh of audio visual equipment includes audio visual control room equipment, classified and unclassified telephony, digital signage, VTC and audio conferencing capabilities
- f. COOP Capabilities - In FY20 USSTRATCOM will build a continuity of operations capability to host mission critical systems and applications at an off-site location

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833140 / Strategic Command And Control						Aggregated Items Title: Multi Domain Command and Control (MDC2)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
JADC2 Procurement																				
Component and End Items	A		-	-	-	-	-	0.000	-	-	2.000	-	-	4.945	-	-	-	-	-	4.945
Subtotal: JADC2 Procurement			-	-	-	-	-	0.000	-	-	2.000	-	-	4.945	-	-	-	-	-	4.945
Total			-	-	-	-	-	0.000	-	-	2.000	-	-	4.945	-	-	-	-	-	4.945

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

Remarks:

Funds will support procurement of components, parts, materials or end items to support JADC2 activities. Funding supports, but is not limited to, various interdependent JADC2 activities: requirements/outputs of the Advanced Battle Management system (ABMS) 4 month On Ramp demos or independent developments, procurement for the Shadow Operations Center at Nellis, AFB, and Sensing Grid requirements.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833160 / Cheyenne Mountain Complex

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305903F, 1203906F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	9.864	10.503	10.145	10.314	-	10.314	10.500	10.685	10.877	11.077	-	83.965
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	9.864	10.503	10.145	10.314	-	10.314	10.500	10.685	10.877	11.077	-	83.965
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	9.864	10.503	10.145	10.314	-	10.314	10.500	10.685	10.877	11.077	-	83.965

(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:

Cheyenne Mountain Complex (CMC) systems provide real-time ballistic missile warning, air defense, force management, battle management and command, control and communications for the North American Air Defense (NORAD) missions.

PE 0305903F - COCOM MOBILE CONSOLIDATED COMMAND CENTERS (MCCC)

Modification for the COMBATANT COMMANDER (CCDR), MOBILE CONSOLIDATED COMMAND CENTER (MCCC): The CCDR's MCCC provides command capabilities to accomplish directed missions in the event of a national level emergency. It provides resilient command, control, communications, computers, and intelligence (C4I) capability accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Support/Homeland Defense (HLS/HLD) and U.S. Northern Command (USNORTHCOM).

PE 1203906F - NCMC - ITW/AA SYSTEM

In FY2021, P-1 Line Item 833160 / Cheyenne Mountain Complex PE 123906F efforts were transferred to Appropriation 3022F, Procurement, Space Force, from Appropriation 3080F due to the creation of a new Appropriation for Space Force. Modification for NORAD CHEYENNE MOUNTAIN COMPLEX-INTEGRATED TACTICAL WARNING/ATTACK ASSESSMENT(NCMC-ITW/AA) SYSTEMS: These systems integrate and correlate missile launch, space object orbit, and air surveillance information to assess the nature of an enemy attack and issue warnings to the President of the United States, the Prime Minister of Canada, United States Secretary of Defense and warfighting Combatant Commanders (CCDR). Funding procures replacement for reliability and maintainability of the information systems hardware and associated systems software for Cheyenne Mountain operating locations to include legacy space defense systems at Vandenberg AFB, CA and remote interfacing sites essential for executing US Strategic Command, NORAD, Joint Force Component Commander (JFCC) space missions exercised in the Cheyenne Mountain Complex (CMC), Combined Space Program Operations Center (CSpOC), and forward operating locations.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
833160 / Cheyenne Mountain Complex
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0305903F, 1203906F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	COCOM Mobile Command and Control Centers (MCCCs)				- / 7.845	- / 10.003	- / 8.066	- / 0.200	- / 0.000	- / 0.200
P-3a	006 / MCCC Upgrade Block 04 (Reliability & Maintainability)		B		- / -	- / 0.000	- / 0.000	- / 8.001	- / 0.000	- / 8.001
P-40a	NCMC - TW/AA System				- / 2.019	- / 0.500	- / 2.079	- / 2.113	- / 0.000	- / 2.113
P-40	Total Gross/Weapon System Cost				- / 9.864	- / 10.503	- / 10.145	- / 10.314	- / -	- / 10.314

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	COCOM Mobile Command and Control Centers (MCCCs)				- / 8.150	- / 8.497	- / 8.649	- / 8.808	- / 0.000	- / 60.218
P-3a	006 / MCCC Upgrade Block 04 (Reliability & Maintainability)		B		- / 0.200	- / 0.000	- / 0.000	- / 0.000	- / -	- / 8.201
P-40a	NCMC - TW/AA System				- / 2.152	- / 2.190	- / 2.230	- / 2.271	- / 0.000	- / 15.554
P-40	Total Gross/Weapon System Cost				- / 10.500	- / 10.685	- / 10.877	- / 11.077	- / -	- / 83.965

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

This program, PE 0305903F, P-3A Mod 006, MCCC Upgrade Block 04, is a new start.

PE 0305903F - COCOM MOBILE CONSOLIDATED COMMAND CENTERS (MCCC)

The CCDR's MCCC provides a resilient command, control, communications, computers, intelligence (C4I), reliability and maintainability capability while accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Security Support/Homeland Defense (HLS/HLD) and USNORTHCOM missions. MCCC modification efforts funded in this line include upgrading MCCC shelters and incorporating additional C4I system capabilities via mobile Information Technology and Communication Upgrade projects; ensuring the platform's ability to rapidly deploy, re-constitute and operate. FY21 funding will execute MCCC Block 04 modifications which include but are not limited to: 1) Communication system upgrades; 2) Mission and support asset upgrades; 3) Cyber security modernization, 4) Network upgrades; and 5) Environmental and Filtration system upgrades along with and including initial spares and test facility updates required by the fielding of these modification. Due to the limited spares demand rate, and indefinite system lifespan, Life of Type buys may be required to support weapons system modifications across the active MCCC Block Programs. FY21 funding will also provide Program Management Administration (PMA) support for the MCCC Block 03 Program initiated in FY20. PMA includes acquisition support/strategy, engineering and technical expertise associated with procurement, support services, test, travel and other program related costs associated with install of procurement equipment. Funding for this effort is in program element 0305903F and is funded IAW full funding policy.

PE 1203906F - NCMC - ITW/AA SYSTEM

Funding procures replacement for reliability and maintainability of the information systems hardware and associated systems software for NCMC/ITW/AA system. This system is a C2 enterprise of various critical information technology systems comprised of communications processors, network devices, C2 services, workstations, databases, and intelligence sources that are integrated to provide the means to assess an enemy attack. In FY21, this line will fund NCMC-ITW/AA Block 04 modifications, which include but are not limited to the two major components: 1) Mission systems (air, missile, and space) upgrades include all subsystems within the sensor-to-operator messaging string message-processing, database, communications processing systems, C2 services, mission operations management systems, and workstations. 2).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0305903F, 1203906F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Network/infrastructure systems for ITW/AA and Space include but are not limited to those sub-systems that provide the fabric for the mission systems to operate within operational and security parameters such as system operations servers, security servers, backup systems, networks and network infrastructure components, support systems software and independent test systems. Due to the limited spares demand rates, and indefinite system lifespan, Life of Type buys may be required to support weapons system modifications across the active NCMC-ITW/AA Block Programs. Additionally, FY21 funding will support continuation of Program Management Administration (PMA) support for the NCMC-ITW/AA Block 03 program in FY20, the NCMC-ITW/AA Block 04 program initiated with FY20 funding and finally the planning efforts for the NCMC-ITW/AA Block 05 program. PMA includes acquisition support/strategy, engineering and technical expertise associated with procurement, support services, test, travel and other program related costs associated with install of procurement equipment. Funding for this effort is in program element 1203906F and is funded IAW full funding policy.</p>		

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3					P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex									Aggregated Modification Items Title: COCOM Mobile Command and Control Centers (MCCCs)					

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
002 / Mobile Consolidated Command Center Modification			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
003 / Mobile Consolidated Command Center Upgrade Block 01			-	-	7.845	-	-	0.440	-	-	-	-	-	-	-	-	-	-	-	
004 / Mobile Consolidated Command Center Upgrade Block 02			-	-	-	-	-	9.563	-	-	0.200	-	-	-	-	-	-	-	-	
005 / Mobile Consolidated Command Center Upgrade Block 03			-	-	-	-	-	-	-	-	7.866	-	-	0.200	-	-	-	-	0.200	
Total			-	-	7.845	-	-	10.003	-	-	8.066	-	-	0.200	-	-	0.000	-	-	0.200

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
002 / Mobile Consolidated Command Center Modification			-	-	8.150	-	-	8.497	-	-	8.649	-	-	8.808	-	-	-	-	-	34.104
003 / Mobile Consolidated Command Center Upgrade Block 01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.285
004 / Mobile Consolidated Command Center Upgrade Block 02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.763
005 / Mobile Consolidated Command Center Upgrade Block 03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.066
Total			-	-	8.150	-	-	8.497	-	-	8.649	-	-	8.808	-	-	0.000	-	-	60.218

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
002 / Mobile Consolidated Command Center Modification	CheyenneMountainComplex	Reliability & Maintainability
003 / Mobile Consolidated Command Center Upgrade Block 01	CheyenneMountainComplex	Reliability & Maintainability
004 / Mobile Consolidated Command Center Upgrade Block 02	CheyenneMounatinComplex	Reliability & Maintainability

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex	Aggregated Modification Items Title: COCOM Mobile Command and Control Centers (MCCCs)

Item Number / Title	Models of Systems Affected	Modification Type
005 / Mobile Consolidated Command Center Upgrade Block 03	CheyenneMountainComplex	Reliability & Maintainability

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex	Modification Number / Title: 006 / MCCC Upgrade Block 04

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	0.000	8.001	0.000	8.001	0.200	0.000	0.000	0.000	-	8.201
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	0.000	8.001	0.000	8.001	0.200	0.000	0.000	0.000	-	8.201
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	0.000	8.001	0.000	8.001	0.200	0.000	0.000	0.000	-	8.201

(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, PE 0305903F, P-3A Mod 006, MCCC Upgrade Block 04, is a new start.
COMBATANT COMMANDER (COCOM), MOBILE CONSOLIDATED COMMAND CENTER (MCCC):

The COCOM's MCCC provides a resilient command, control, communications, computers, intelligence (C4I), reliability and maintainability capability while accomplishing directed COCOM missions. The MCCC provides C4I for Homeland Security Support/Homeland Defense (HLS/HLD) and USNORTHCOM missions. MCCC modification efforts funded in this line include upgrading MCCC shelters and incorporating additional C4I system capabilities via mobile Information Technology and Communication Upgrade projects; ensuring the platform's ability to rapidly deploy, re-constitute and operate.

FY21 funding will execute MCCC Block 04 modifications which include but are not limited to: 1) Communication systems upgrades; 2) Mission and support asset upgrades; 3) Cyber security modernization; 4) Network upgrades; 5) Environmental and Filtration system upgrades along with and including initial spares and test facility updates required by the fielding of these modifications. Due to the limited spares demand rate and indefinite system lifespan, Life of Type buys may be required to support weapon system modifications across the active MCCC Block Programs. FY21 will also fund Program Management Administration (PMA) support for the MCCC Block 03 Program initiated in FY20.

PMA costs fund acquisition support/strategy, engineering and technical expertise associated with procurement activities. In addition, PMA costs will also support equipment test, travel, and other program related costs associated with install of procurement equipment. Funding for this effort is in Program Element 0305903F and is funded IAW full funding policy.

Milestone/Development Status

Sustainment

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3				P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex				Modification Number / Title: 006 / MCCC Upgrade Block 04					
ID Code (A=Service Ready, B=Not Service Ready) : B						MDAP/MAIS Code:							
Models of Systems Affected: CheyenneMountainComplex				Modification Type: Reliability & Maintainability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: MCCC (5)</i>													
B Kits													
Recurring													
MCCC:EQUIPMENT Group B (Active)	- / -	- / -	- / -	1 / 5.282	- / -	1 / 5.282	- / -	- / -	- / -	- / -	- / -	1 / 5.282	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 5.282	- / -	- / 5.282	- / -	- / -	- / -	- / -	- / -	- / 5.282	
<i>Subtotal: MCCC (5)</i>	- / -	- / -	- / -	- / 5.282	- / -	- / 5.282	- / -	- / -	- / -	- / -	- / -	- / 5.282	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / 5.282	- / -	- / 5.282	- / -	- / -	- / -	- / -	- / -	- / 5.282	
Support (All Modification Items)													
PMA - Contractor Services	- / -	- / -	- / -	- / 1.000	- / -	- / 1.000	- / 0.200	- / -	- / -	- / -	- / -	- / 1.200	
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / 1.000	- / -	- / 1.000	- / 0.200	- / -	- / -	- / -	- / -	- / 1.200	
Installation													
<i>Modification Item 1 of 1: MCCC (5)</i>													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	1 / 1.719	- / -	1 / 1.719	- / -	- / -	- / -	- / -	- / -	1 / 1.719	
Total													
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	8.001	0.000	8.001	0.200	0.000	0.000	0.000	-	8.201	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex	Modification Number / Title: 006 / MCCC Upgrade Block 04
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 1 of 1: MCCC (5)

Manufacturer Information

Manufacturer Name: CACI National Security Solutions, Inc. Manufacturer Location: Albuquerque, NM

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 6

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Jan 2021				
Delivery Dates			Jul 2021				

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	1 / 1.719	- / -	1 / 1.719	- / -	- / -	- / -	- / -	- / -	1 / 1.719
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 1.719	- / -	1 / 1.719	- / -	- / -	- / -	- / -	- / -	1 / 1.719

Installation Schedule

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex	Aggregated Modification Items Title: NCMC - TW/AA System
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Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
001 / Core C2 Enterprise Network Infrastructure and Mission Equipment			-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	0.000
NCMCB1 / NORAD Cheyenne Mountain Complex Block 01			-	-	2.019	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
NCMCB2 / NORAD Cheyenne Mountain Complex Block 02			-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
NCMCB3 / NORAD Cheyenne Mountain Complex Block 03			-	-	-	-	-	0.000	-	-	2.079	-	-	0.205	-	-	-	-	-	0.205
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04			-	-	-	-	-	-	-	-	-	-	-	1.908	-	-	-	-	-	1.908
Total			-	-	2.019	-	-	0.500	-	-	2.079	-	-	2.113	-	-	0.000	-	-	2.113

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
001 / Core C2 Enterprise Network Infrastructure and Mission Equipment			-	-	2.152	-	-	2.190	-	-	2.230	-	-	2.271	-	-	-	-	-	8.843
NCMCB1 / NORAD Cheyenne Mountain Complex Block 01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.019
NCMCB2 / NORAD Cheyenne Mountain Complex Block 02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.500
NCMCB3 / NORAD Cheyenne Mountain Complex Block 03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.284
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.908
Total			-	-	2.152	-	-	2.190	-	-	2.230	-	-	2.271	-	-	0.000	-	-	15.554

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
001 / Core C2 Enterprise Network Infrastructure and Mission Equipment	CheyenneMountainComplex	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833160 / Cheyenne Mountain Complex	Aggregated Modification Items Title: NCMC - TW/AA System
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Item Number / Title	Models of Systems Affected	Modification Type
NCMCB1 / NORAD Cheyenne Mountain Complex Block 01	NORADCheyenneMountainComplex	Reliability & Maintainability
NCMCB2 / NORAD Cheyenne Mountain Complex Block 02	NORADCheyenneMountainComplex	Reliability & Maintainability
NCMCB3 / NORAD Cheyenne Mountain Complex Block 03	NORADCheyenneMountainComplex	Reliability & Maintainability
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04	NORADCheyenneMountainComplex	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833170 / Mission Planning Systems

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208006F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	12.092	14.508	15.132	-	15.132	14.878	15.695	17.961	18.290	-	108.556
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	12.092	14.508	15.132	-	15.132	14.878	15.695	17.961	18.290	-	108.556
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	12.092	14.508	15.132	-	15.132	14.878	15.695	17.961	18.290	-	108.556

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

Description:

The Mission Planning Systems (MPS) Hardware program procures commercial-off-the-shelf (COTS) computing systems hardware and hardware-related requirements for Air Force active duty, Guard, and Reserve units worldwide. These computing systems provide a flexible, configurable and cost-effective range of increasing capability to meet the continuum of peacetime, contingency and wartime planning requirements. These electronic systems provide a mission data management system that efficiently interfaces with other planning systems as well as aircraft avionics. These computing systems are procured on a four-year life cycle replacement to effectively address and/or alleviate Diminishing Manufacturing Sources (DMS) issues. Once procured the systems are centrally managed for all applicable AF platforms and their operational users, including Guard and Reserve Forces.

The program continues the procurement of COTS computing hardware and other devices associated with the Mission Planning Systems program. It also continues the procurement of all capital replacement hardware used in conjunction with MPS and other pre-, post-, and in-flight mission planning software. Together this hardware and associated software enables aircrews and other planners to plan the safest, most effective operational missions in a timely manner.

The program procures COTS based Personal Computing (PC) Systems to include (but are not limited to) desktop computers, laptops, personal digital assistants (PDA), tablet PCs, color printers, storage devices, servers, displays, other peripherals, software and software licenses, and other support services, that together, allow the user to produce the necessary charts and other mission-specific products required to effectively perform a variety of military missions.

A variety of information technology, navigation and communications hardware and software packages will also be procured each year to meet the varied needs of mission planning platforms and training units. This PC-based capability, when integrated with corresponding mission planning software releases, provides a portable, tailorable, net-centric system for aircrews to complete the mission planning function. The procured items also enable aircrews to effectively utilize software that has been modified to stay in sync with new capabilities incorporated into select platforms via their Operational Flight Program (OFP) update process. They also provide a mission planning capability for precision/autonomous guided munitions and can also be networked with other Theater Battle Management (TBM) systems to further tailor a platform's mission planning environment.

The MPS procurement strategy leverages the rapid increase in PC-based technology to enable high-end computing on increasingly smaller and more mission-oriented devices. The programs procure PC-based systems that provide flexible, configurable, and cost effective solutions that increase tactical and strategic capabilities to meet the continuum of operations ranging from peacetime contingencies to conventional and nuclear wartime mission planning requirements. Each segment of the program has shifted its hardware emphasis from a limited number of large, complex planning systems to more compact and personal planning devices that can be tailored to satisfy user needs. This adjustment is a practical and efficient way to meet technology-driven challenges such as the evolutionary nature of mission planning

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs		P-1 Line Item Number / Title: 833170 / Mission Planning Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0208006F
Line Item MDAP/MAIS Code: N/A		
<p>(that necessitates recurrent hardware changes to meet overall system requirements) and advances in COTS technology that makes available new capabilities (which may lower component costs or address component/interface obsolescence). It is also a more effective way to address changes in the number, type, and deployment of aircraft/weapons that force changes in the number of PC-based mission planning computers and their concept of operations.</p> <p>1. MISSION PLANNING SYSTEMS (MPS) HARDWARE: This acquisition is a continuation of procurement efforts to provide MPS-related hardware for Air Force platforms. The program will provide a suite of COTS-based mission planning hardware and software systems that can be connected to data transfer device systems from USAF aircraft (e.g. F-22, B-1, F-16, F-15, RC/OC-135, E-3, E-4, E-8, C-130, HC-130, EC-130, HH-60, KC-135, KC-46, C-5, KC-10, C-17, A-10, F-35, RQ-4, U-2, B-52, B-2, UH-1, T-38, T-7A) and the support of USAF training requirements. MPS allows aircrews to electronically receive tasking orders, intelligence information, target coordinates, imagery and other information from USAF Command, Control, Communications, Computers, and Intelligence (C4I) systems. This information is then used to organize and prepare flight (including equipment and personnel airdrop) and weapons delivery planning data (e.g., maps, charts, imagery, flight logs, radar predications, and navigation databases) that is electronically transferred to aircraft and/or precision-guided weapons. MPS increases the combat effectiveness of Air Force aerial assets (including unmanned air vehicles, conventional and low-observable aircraft, and weapons) and Army guided delivery systems by supporting the use of sophisticated avionics and precision/autonomous guided munitions. It helps to increase wartime sortie rates while improving aircrew and aircraft survivability and aircrew readiness.</p> <p>2. PRECISION AERIAL DELIVERY SYSTEM (PADS): PADS provides the capability for direct delivery of cargo and equipment through high altitude and low, precision airdrops (principally with C-17 and C-130 aircraft). Currently it consists of the Joint Precision Airdrop System (JPADS) acquisition effort. JPADS is a collaborative effort with the Army, USMC, and other agencies to provide aviators the ability to accurately airdrop payloads (including supplies/equipment and personnel) to units in the field from altitudes beyond the reach of some surface-to-air weaponry. This portion of the program procures COTS-based computing hardware, support services and aerial delivery systems to enable completion of pre and in-flight mission planning functions as well as aerial delivery proficiency training in and with operational units.</p> <p>Market surveys and analysis of COTS products will be used to support procurement decisions. This funding request will continue to support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity.</p> <p>Funding for this exhibit contained in PE 0208006F.</p> <p>As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 833170 / Mission Planning Systems
Equip / BSA 3: Electronics Programs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208006F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Mission Planning Systems				- / -	- / 12.092	- / 14.508	- / 15.132	- / -	- / 15.132
P-40	Total Gross/Weapon System Cost				- / -	- / 12.092	- / 14.508	- / 15.132	- / -	- / 15.132

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 FY21 funding will continue procurement of a variety of computers, software, and electronic equipment to support pre-, post-, and in-flight mission planning tasks for a number of Air Force platforms. Procured hardware and other items will support and enable completion of mission planning efforts using legacy planning tools (e.g. Portable Flight Planning Software (PFPS)) as well as the Joint Mission Planning Systems (JMPS). The hardware will also accommodate planning system updates based upon new capability incorporation via individual platform Operational Flight Programs (OFPs). All items where appropriate are centrally managed and distributed by the Mission Planning System Support Facility and the Defense Logistics Agency. The following kinds of equipment and mission areas will be supported:

1. MPS HARDWARE: FY21 funding will continue procurement of COTS-based hardware, software, and support services to include (but is not limited to) desktop computers, laptops, tablet PCs, data storage devices, servers, PDAs, monitors, software applications, warranties, and other electronic computing components. These assets provide a portable, tailorable, network-capable system that can be integrated with MPS software to provide basic mission planning capability and data interoperability with C4I systems. Components can also be networked with further tailor a platform's mission planning environment. The program will procure hardware and software items, warranties, other services, and up to a 15% contingency inventory (based on the overall number of items being procured) for the following mission planning operational users:

Air Combat Command (ACC): F-15, F-16,F-22,F-35, A-10, E-3, E-4, E-8,RC/OC-135, HH-60, HC-130, EC-130, U-2, RQ-4

Air Mobility Command : C-5, C-17, C-130, KC-10, KC-135, KC-46

Air Force Global Strike Command (AFGSC): B-2, B-52, B-1, UH-1

Air Education and Training Command (AETC): T-38, T-7A

Funding for this effort is in program element 0208006F.

2. PRECISION AERIAL DELIVERY SYSTEMS (PADS): FY21 funding will continue the procurement of Joint Precision Airdrop Systems (JPADS) hardware, software, Line Replaceable Unit (LRU) support equipment for functional checkout (i.e. Automatic Test Equipment or ATE) and other related items. Components include, but are not limited to: guided delivery vehicles (e.g. ultralight, 2K, 10K); Pressure Tolerant Disk Drives (PTDD) [including solid state and pressure sealed disk drives]; precision-guided airdrop training systems; portable data storage units, engineering/technical support, equipment storage and associated hardware warranties. Funding for this effort is in program element 0208006F.

3. PROGRAM MANAGEMENT ADMINISTRATION: FY21 funding provides program office, engineering, and other contractor support for the Mission Planning Systems (MPS) and Joint Precision Airdrop Systems (JPADS) procurement program. Items 1b and 2i,2j in aggregated items table.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3 **P-1 Line Item Number / Title:** 833170 / Mission Planning Systems **Aggregated Items Title:** Mission Planning Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
1. Mission Planning Systems (MPS)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a. MPS Hardware	A		-	-	-	-	-	7.482	-	-	8.576	-	-	9.189	-	-	-	-	-	9.189
b. MPS Program Management Administration (Contractor Services)	A		-	-	-	-	-	0.703	-	-	0.724	-	-	0.745	-	-	-	-	-	0.745
2. Precision Aerial Delivery Systems (PADS)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a. PADS Dropsondes	A		-	-	-	-	-	-	-	-	64,216.00	35	2.248	-	-	-	64,216.00	35	2.248	-
b. PADS Shipping	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c. PADS Support Services & Spares	A		-	-	-	-	-	-	-	-	-	-	0.207	-	-	-	-	-	-	0.207
d. PADS System Engineering & Logistical Support	A		-	-	-	-	-	0.499	-	-	0.493	-	-	0.503	-	-	-	-	-	0.503
e. PADS Testing	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f. PADS Delivery Systems	A		-	-	-	26,583.00	112	2.977	15,763.00	273	4.303	12,855.00	148	1.903	-	-	-	12,855.00	148	1.903
g. PADS PARANAVSYS Delivery Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
h. PADS Delivery System Riggings & Services	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
i. Program Management Administration (Government Cost)	A		-	-	-	-	-	0.115	-	-	0.105	-	-	0.037	-	-	-	-	-	0.037
j. Program Management Administration (Contractor Services)	A		-	-	-	-	-	0.316	-	-	0.307	-	-	0.301	-	-	-	-	-	0.301
k. PADS Ultralight	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
l. PADS Drives & Storage Devices	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m. Depot Equipment	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	12.092	-	-	14.508	-	-	15.132	-	-	-	-	-	15.132
Total			-	-	-	-	-	12.092	-	-	14.508	-	-	15.132	-	-	-	-	-	15.132

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

Remarks:
Unit costs vary because different types/configurations of equipment are being procured.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3	P-1 Line Item Number / Title: 833170 / Mission Planning Systems	Aggregated Items Title: Mission Planning Systems
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Mission Planning Systems (MPS) and Precision Aerial Delivery Systems (PADS) components are procured as commercial-of-the-shelf (COTS) equipment using various contracting methods, vehicles and agencies. Items are procured annually via Delivery Orders (DOs) on a variety of contract vehicles (e.g. Blanket Purchase Agreements (BPAs), Indefinite Delivery Indefinite Quantity (IDIQ) contracts, and GSA and NASA SEWP IV Contract schedules) and through agencies such as AFWAY/NETCENTS II (Gunter AFB).

Mission Planning Systems (MPS) hardware assets are centrally managed by the Mission Planning System Support Facility (MPSSF) and the Defense Logistics Agency (DLA) at Hill AFB.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833440 / Drug Interdiction Spt

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0201110F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.233	-	0.000	-	0.000	0.000	0.000	0.000	-	-	0.233
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.233	-	0.000	-	0.000	0.000	0.000	0.000	-	-	0.233
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.233	-	0.000	-	0.000	0.000	0.000	0.000	-	-	0.233

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

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

Description:

Funding supports drug interdiction and counter-drug activities.

Funding for this exhibit contained in PE 0201110F.

Justification:

No FY21 funds requested.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 3: Electronics Programs

P-1 Line Item Number / Title:
833560 / Integrated Strat Plan & Analy Network (ISPAN)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	7.337	8.601	9.806	-	9.806	9.482	9.648	9.820	10.000	-	64.694
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	7.337	8.601	9.806	-	9.806	9.482	9.648	9.820	10.000	-	64.694
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	7.337	8.601	9.806	-	9.806	9.482	9.648	9.820	10.000	-	64.694

(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:

INTEGRATED STRATEGIC PLANNING AND ANALYSIS NETWORK (ISPAN): The mission of USSTRATCOM is to conduct global operations in coordination with other Combatant Commands, Services, and appropriate U.S. Government agencies to deter and detect strategic attacks against the U.S. and its allies. It provides full-spectrum global strike, and coordinated space, missile defense, and information operations capabilities to meet both deterrent and decisive national security objectives. USSTRATCOM will also provide operational space support, integrated missile defense, global command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), and specialized planning expertise to the joint warfighter. ISPAN enables USSTRATCOM to carry out these missions. It is one of DoD's most complex classified computer systems and the only national force level planning system.

ISPAN enables an effects-based approach to planning and operations; cross domain information sharing; and serves multiple planning environments. It develops, verifies, and produces Operational Plan (OPLAN) 8010. It also supports the USSTRATCOM family of plans construct and current Concept of Operations. The system performs tasks ranging from creating and running Courses of Action (COAs) on threat scenarios to providing data for developing bomber aircraft crew strike mission data in digital and hard copy formats. It includes automated data processing equipment (ADPE), multiple networks, unique processes and procedures, software, training, associated deployable and distributed data processing nodes, a test/development environment, and subsidiary systems. The system will migrate to the new USSTRATCOM Command and Control Facility.

The ISPAN program is comprised of two independent but complementary planning systems; the Mission Planning and Analysis System (MPAS) and the Global Adaptive Planning Collaborative Information Environment (GAP-CIE). MPAS is an automated information system to support Global Strike nuclear and conventional target development and weaponing. MPAS includes Mission Planning, Analysis, and Decision Support tools and an Enterprise Database to sustain and support nuclear and conventional strategic war planning. GAP-CIE provides web-enabled adaptive planning, rapid distributed Course of Action (COA) development and global situational awareness supporting both contingency and crisis planners.

ISPAN uses a four-year life-cycle replacement plan for Cyber Investments to procure required Commercial Off-The-Shelf (COTS) hardware (e.g. servers, storage devices, workstations, peripherals and other network components). In some instances the hardware must be combined with commercially available software to form unique planning environments. The program's life cycle replacement plan for hardware Cyber Investments follows industry standards and is used to eliminate the peaks and valleys associated with maintaining compatibility with the fast moving COTS hardware technology improvement cycle. It also allows the program to better utilize existing manpower to install and configure the hardware systems to provide an incremental and efficient replacement of critical infrastructure components as they become obsolete. Hardware and software Cyber Investments procured within the program are used to support all ISPAN program increments.

Funding for this exhibit is contained in Program Element 0101313F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 3: Electronics Programs **P-1 Line Item Number / Title:** 833560 / Integrated Strat Plan & Analy Network (ISPAN)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Integrated Strat Plan & Analy Network (ISPAN)				- / -	- / 7.337	- / 8.601	- / 9.806	- / -	- / 9.806
P-40	Total Gross/Weapon System Cost				- / -	- / 7.337	- / 8.601	- / 9.806	- / -	- / 9.806

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 FY21 funding continues the life-cycle procurement of commercial-based hardware and software Cyber Investments for the ISPAN mission system which consists of the Mission Planning and Analysis System (MPAS) and the Global Adaptive Planning Collaborative Information Environment (GAP CIE) efforts. Funding procures mission system Cyber Investments in the form of infrastructure, architecture, and related support components. Funding also provides a secure cross-domain security solution capability to enable automated data transfers between multi-level networks supporting planners worldwide on multiple enclaves. It allows for the procurement of Cyber Investment items such as (but are not limited to) application servers, switches, storage area network (SAN), backup and recovery systems, guard solution software and other articles that will provide a secure Cross Domain Security Solution (CDSS) capability. Funding also provides for procurement of virtualization technology environments and distributed operations capabilities to support joint warfighters across geographically separated locations. Finally, funding provides Cyber Investments for the initial migration of the ISPAN mission system to the new USSTRATCOM Command and Control Facility.

NOTE: Hardware procured primarily as Commercial Off the Shelf (COTS) items in varying quantities, in multiple configurations, from multiple sources, using multiple contract vehicles.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3							P-1 Line Item Number / Title: 833560 / Integrated Strat Plan & Analy Network (ISPAN)								Aggregated Items Title: Integrated Strat Plan & Analy Network (ISPAN)				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
ISPAN Mission Systems Hardware	A		-	-	-	-	-	-	-	-	-	0.405	2	0.810	-	-	-	0.405	2	0.810
End-point Computing Devices	A		-	-	-	0.264	1	0.264	0.250	1	0.250	0.015	100	1.500	-	-	-	0.015	100	1.500
UNIX/SPARC-based servers	A		-	-	-	0.419	3	1.257	0.850	1	0.850	-	-	-	-	-	-	-	-	-
MPAS Virtual Servers	A		-	-	-	-	-	-	-	-	-	0.250	9	2.250	-	-	-	0.250	9	2.250
GAP CIE Deployment HW/SW	A		-	-	-	-	-	-	1.000	1	1.000	-	-	-	-	-	-	-	-	-
PRP	A		-	-	-	0.625	1	0.625	-	-	-	-	-	-	-	-	-	-	-	-
ISPAN B-Network	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISPAN Security Enclaves (SIPR, TS/ C, & JWICS)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISPAN Virtual Data Storage System	A		-	-	-	-	-	-	1.534	1	1.534	0.510	3	1.530	-	-	-	0.510	3	1.530
ISPAN Analysis Systems -- IWMDT and EADSIM	A		-	-	-	0.280	1	0.280	-	-	-	-	-	-	-	-	-	-	-	-
ISPAN Systems at Geographically Separated Location(s)	A		-	-	-	-	-	-	-	-	-	0.500	2	1.000	-	-	-	0.500	2	1.000
ISPAN Systems reconstitute at GSUs	A		-	-	-	-	-	-	-	-	-	0.375	2	0.750	-	-	-	0.375	2	0.750
Block 1 Major Hardware	A		-	-	-	-	-	-	0.277	4	1.108	-	-	-	-	-	-	-	-	-
H/W and S/W to Deploy Comman Access Card System	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cross Domain Guard Solution	A		-	-	-	-	-	-	0.750	1	0.750	-	-	-	-	-	-	-	-	-
System to Ingest External Data into ISPAN	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISPAN Network Systems	A		-	-	-	-	-	-	0.464	1	0.464	0.551	1	0.551	-	-	-	0.551	1	0.551
Testing and Experimentation of ISPAN Mission Systems	A		-	-	-	1.218	3	3.654	0.500	2	1.000	-	-	-	-	-	-	-	-	-
ISPAN Systems for Off-Site Developers (GFE)	A		-	-	-	0.382	1	0.382	0.500	1	0.500	0.162	4	0.648	-	-	-	0.162	4	0.648

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 3						P-1 Line Item Number / Title: 833560 / Integrated Strat Plan & Analy Network (ISPAN)						Aggregated Items Title: Integrated Strat Plan & Analy Network (ISPAN)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Enterprise Licence Agreements ISPAN Mission Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Program Management Administration (Government Cost)	A		-	-	-	0.010	1	0.010	0.010	1	0.010	0.010	1	0.010	-	-	-	0.010	1	0.010
Program Management Administration (Contractor Services)	A		-	-	-	0.173	5	0.865	0.227	5	1.135	0.757	1	0.757	-	-	-	0.757	1	0.757
USSTRATCOM C2 Building Hardware & Networks	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Uncategorized			-	-	-	-	-	7.337	-	-	8.601	-	-	9.806	-	-	-	-	-	9.806
Total			-	-	-	-	-	7.337	-	-	8.601	-	-	9.806	-	-	-	-	-	9.806

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

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834010 / General Information Technology

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F

Line Item MDAP/MAIS Code: CAMI

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	34.624	36.753	39.887	5.100	44.987	47.346	97.745	92.050	99.647	-	453.152
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	34.624	36.753	39.887	5.100	44.987	47.346	97.745	92.050	99.647	-	453.152
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	34.624	36.753	39.887	5.100	44.987	47.346	97.745	92.050	99.647	-	453.152

(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:

PE 0201130F US Northern Command Communications - P-40A

a. NORAD AND USNORTHCOM INTEROPERABLE COMMUNICATIONS: This includes mission specific communications enhancements to support extension of Public Switched Telephone Network (PSTN), Commercial Internet and Cellular-Wireless/First Responder Network 4G LTE to Civil Authorities from the DoD Satellite Teleports either directly to the Civil Authorities' communications systems or through DoD communications systems. This program combines the Interoperable Communications and Joint Tactical Radio System (JTRS) compliant radio handsets to enable the Defense Support of Civil Authorities mission.

b. DEPLOYABLE COMMUNICATIONS CAPABILITIES SYSTEM LIFE CYCLE MANAGEMENT: The USNORTHCOM Deployable Communications Fleet consists of Emergency Response Vehicles (ERV) Mobile Command Platforms (MCP), Rapid Response Kits (RRK) and fly-away communications systems, in expeditionary modular and scalable form factors that can be flown on commercial airlines or military aircraft to a nationally declared disaster. (NC J6 DCCS combined the previously approved and funded Cellular System Technical Refresh and Emergency Response Communications System into one consolidated effort).

PE 0207277F ISR Innovations - P-40A

Family of systems providing high impact, quick reaction capabilities to warfighters for mission planning, rehearsal, visualization, and intelligence gathering purposes. Program components include: Eagle Vision, DoD's worldwide deployable commercial imagery ground station capability, and ISR innovations, rapid prototyping, operational evaluation and fielding of short notice, high payoff capabilities addressing immediate caps and/or shortfalls identified by warfighting activities. Eagle Vision provides direct downlink commercial imagery to operational commanders for mission support purposes.

In accordance with Section 1815 of the FY2008 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.

PE 0207439F Electronic Warfare Integrated Reprogramming (EWIR) - P-40A

DISTRIBUTED MISSION OPERATIONS AND THREAT CHANGE ANALYSIS: Conducted by the 453rd Electronic Warfare Squadron (453 EWS), EWIR provides analytical capabilities and reachback support for DoD acquisition, planning and mission execution activities. These capabilities ensure electronic warfare (EW) systems and integrated combat platforms correctly recognize and respond to enemy, friendly and noncombatant systems operating within the electromagnetic environment. The effort includes funds used to procure specialized information technology systems used to identify electromagnetic spectrum emitter changes that impact combat defensive and electronic warfare systems and to conduct detailed analyses in support of operational mission planning, tactics, techniques and procedures (TTP)

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		
development, acquisition and test & evaluation. These analyses provide the means to understand the performance of their systems in hostile environments, directly impacting the survivability of combat-coded USAF aircraft and aircrews. Funding for this exhibit contained in PE 0207439F.		
<p>PE 0207448F C2ISR Tactical Data Link - P-40A Assistant Secretary of Defense, Command, Control, Communications, and Intelligence (ASD/C3I) directed implementation of the DoD Cryptographic Modernization Initiative (CMI) on 23 February 2001. Chairman, Joint Chiefs of Staff (CJCS) Notice 6510/NSA 3-9 directs the modernization of all cryptography in military systems in the US, NATO and Coalition nations. To prevent information compromise, the National Security Agency (NSA) mandate requires Link 16 cryptographic systems be upgraded. The CJCS directed a modernization effort at the recommendation of the NSA to modernize equipment and provide enhanced security for Link 16 tactical networks (Cryptographic Modernization Initiative (CM)). Likewise, a radio frequency spectrum memorandum of agreement between the DoD and the Department of Transportation mandated the internal frequency remapping of our Link 16 family of terminals to avoid conflict with next generation Federal Aviation Administration (FAA) radio aids to navigation. These two mandates, among other operational reliability and capability improvements, will be satisfied with procurement of the Link 16 Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) radios.</p> <p>PE 0207573F National Technical Nuclear Forensics - P-40A Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrial-based sensors and communications for prompt diagnostics, collection, analysis, and evaluation of a nuclear detonation. Funding also includes procurement of technical data and any required initial system support. Funding was moved from BPAC 834320 starting in FY20.</p> <p>PE 0207605F Wargaming and Simulation Centers - P-40A The Warrior Preparation Center conducts and supports integrated and distributed Live, Virtual, and Constructive (LVC) warfighter training for Joint and Combined partners in the European and African theaters.</p> <p>PE 0207697F Distributed Training and Exercises - P-40A AIR FORCE DISTRICT WASHINGTON: Wargaming and analysis suites, hardware, and software in direct support of the wargaming informational environment, which is distributed across the National Capitol Region, United States Air Force, and Combatant Commands worldwide. Funding for this exhibit contained in PE 0207697F.</p> <p>PE 0208288F Intel Data Applications - P-40A Funds the application of Intelligence data as datasets/databases, model and simulations, and analysis for combat and combat support users. Provides for the communications infrastructures required to support Intelligence data applications.</p> <p>PE 0305128F Security and Investigative Activities - P-40A The Air Force Office of Special Investigation (AFOSI) Directorate of Warfighting Integration is responsible for the delivery of Information Technology (IT) services, both unclassified and classified, to over 250 locations, world-wide. The directorate also has the responsibility for continually identifying and implementing advanced applications, tools and IT technology that improve AFOSI's ability to manage investigative activity for Air Force leaders. It accomplishes this mission through the management and oversight of personnel, products and systems associated with unclassified, Secret, special access, law enforcement sensitive (LES) and Top Secret/SCI computers and information systems, long-haul, communications circuits, official records, Privacy Act, Freedom of Information Act, publication and forms, and official mail to achieve the command's operational objectives in support of the AF and Office of the Secretary of Defense as well as to achieve Executive mandates to improve information sharing within and between the law enforcement and intelligence communities.</p> <p>PE 0305173F Space and Missile Test and Evaluation Center - P-40A The Research and Development Space and Missile Operations (RDSMO) program has transferred from PE 0305173F to PE 1203173F.</p> <p>PE 0305174F Space Innovation, Integration and Rapid Technology Development - P-40A</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		
<p>Located at Peterson AFB, Colorado, the Space Innovation, Integration and Rapid Technology Development (SIIRTD) program develops and modifies modeling and simulation tools that Air Force Space Command's Space Analysis Center uses for operations research, military utility analyses, tradeoff studies, and other evaluations of space mission areas to guide planning, programming, requirements generation, analyses of alternatives, and other activities. Development activities incorporate changes in fielded and projected space operational capabilities, as well as technical improvements, into the group's software tools to ensure their data and technology remain current. Its innovation, education, and training activities foster solutions to operational deficiencies and enhance the integration of space systems into Air Force operations, thereby enabling service and joint warfighters to realized the full potential of existing and planned space capabilities.</p> <p>DISTRIBUTED COMMUNICATIONS ARCHITECTURE: This system provides a network based communications capability enabling dispersed space personnel to participate in space exercises and wargames and to assist in development, testing, and validation of SIIRTD innovation projects supporting the Combat Air Forces. It can also support limited command and control capabilities for space operations.</p> <p>SPACE ANALYSIS CENTER: Air Force Space Command's Space Analysis Center uses modeling and simulation tools to conduct operations research, military utility analyses, tradeoff studies, and other evaluations of space mission areas to guide planning, programming, requirements generation, analyses of alternatives, and other activities. Related modeling and simulation tool development is funded in RDT&E, AF, PE 0305174F, Space Innovation, Integration and Rapid Technology Development.</p> <p>PE 0305601F Mission Partner Environments - P-40A Mission Partner Environment (MPE) enables secure sharing of operational information for collaboration between and among the U.S. and mission partners to include federal, State, local, and tribal agencies, allies, coalition members, host nations, and other nations, United States and international Non-Governmental Organizations, multinational treaty organizations, and private sector organizations. The MPE program enables the United States (US) Department of Defense (DoD) to execute its assigned missions with mission partners across the complete ranges and phases of military operations to assist combined command and control (C2) of coalition forces while meeting the information sharing requirements within existing bi-lateral and multi-lateral agreements. Also, it promotes effective information exchange and provides applications to enable effective use of the United States and Partner nation military power. MPE provides the warfighter mission with technology to improve mission effectiveness and cyber security.</p> <p>PE 0604281F Tactical Data Networks Enterprise - P-40A Tactical Data Link (TDL) enterprise efforts include equipment, fielding support, and associated contract support for the fielded Family of Gateways, as well as capability enhancements to TDLs, gateways, and AF contributions to the Joint Aerial Layer Network (JALN). These airborne networking systems enable combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks. Tactical Data Network (TDN) Planning, Analysis and Monitoring (PAM) will add capability to modernize CONUS ground-based TDL gateways. Full Motion Video effort includes equipment, fielding support, contractor support, and training. These systems will add capability to modernize CONUS/OCONUS ground based strike decisions in the hostile environment.</p> <p>PE 0708012F Logistics Support Activities - P-40A GUNTER AIR FORCE BASE NETWORK SERVICES provide unique local area network (LAN) hardware to the population at Maxwell Air Force (MAFB)-Gunter Annex, AL including equipment for web access, file storage backup, information security, and application testing for AF programs worldwide hosted at MAFB-Gunter Annex, AL. LAN equipment enables MAFB-Gunter Annex to manage/support 122 programs and systems worldwide. MAFB-Gunter Annex exceeds the standard Base Information Transport Infrastructure (BITI) environment, therefore no funding is provided by BITI.</p> <p>PE 0708074F Joint Logistics Program - Total Asset Visibility - P-40A AUTOMATIC IDENTIFICATION TECHNOLOGY (AIT): A collection of enabling technologies including linear and two-dimensional bar codes, radio frequency identification, smart cards, memory cards, laser cards, touch memory, and voice and biometrics identification. These technologies provide timely and accurate automatic capture, aggregation, and transfer of data to management information systems with minimal human involvement. By capitalizing on advances in technology the Air Force is able to gain efficiencies in the logistical supply chain and asset visibility throughout an item's life cycle. Project funding enables compatibility of Air Force and industry standards in the core areas of supply, transportation, and maintenance, as well as weaving commercial AIT business practices and standards into the Air Force's logistics infrastructure.</p> <p>PE 0801380F AF LVC Operational Training (LVC-OT) - P-40A PE 0801380F AF LVC Operational Training (LVC-OT)</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		
SIMULATORS COMMON ARCHITECTURE REQUIREMENTS AND STANDARDS (SCARS): An initiative to incrementally establish a common open-system architecture for Air Force simulators that leverages common applications, supports efficient and rapid updates to capabilities, evolves with cybersecurity threats and controls, and minimizes lifecycle costs.		
<p>PE 0804711F Recruit Training Units - P-40A BASIC MILITARY TRAINING (BMT) SURVEILLANCE SECURITY SYSTEM: Basic Military Training sustains the combat capability of the Air Force (Active duty, Air National Guard and Air Force Reserve Command) with trained airmen. MTI Misconduct-Restore The Trust /Requirements associated with MTI misconduct issues at BMT. Due to the sexual misconduct by MTIs at BMT, AETC/CC directed a Commander Directed Investigation (CDI) to identify issues that place Airmen at risk in their training environment. SECAF/CSAF support findings and recommended actions to "Eliminate Detection Weakness". This effort continues the purchase, installation, and integration of a surveillance system covering common areas of the BMT facilities at JBSA-Lackland AFB for the deterrence and prosecution of misconduct. It includes hardware, system engineering/test and evaluation, site survey, infrastructure installation and support. Detailed requirements include: network switch, network storage device/upgrade package, computer monitor, site license, channel expansion license, hard drive, uninterruptable power supply, extended battery, digital monitor, cameras, and camera communication cable.</p>		
<p>PE 0804721F Service Academies - P-40A AIR FORCE ACADEMY: FIX AIR FORCE ACADEMY MISSION NET: USAFA is executing a multi-year project to fix disconnects/deficiencies in its University-wide WiFi system on its primary mission network. Most buildings were built in the 1960s (governed by historic preservation rules/restrictions), and either do not have any WiFi at all, or have sub-standard WiFi coverage insufficient to meet USAFA's mission requirements for academics, military training, aviation/airmanship, and NCAA athletics. PEC 84721 IT Investment funds (3080) are sole source of funding for this multi-year program to fix these disconnects/deficiencies, and ensure we are able to meet our 10 U.S.C Section 9453 requirement to graduate & commission approximately 1,000 2Lt's each year. The lack of WiFi is a direct, causal & imminent risk to USAFA's accreditation as a degree-granting university. Costs will be in excess of the \$1.5M programmed each year across the FYDP, and will continue year-by-year after until the disconnects/deficiencies are fixed (estimated at 8+ years).</p>		
<p>PE 0804731F General Skill Training - P-40A GENERAL SKILL TRAINING: General Skills Training supports initial, advanced and supplemental training associated with all Air Force career fields taught or managed under Goodfellow, Keesler, Vandenberg, Sheppard, Lackland, and Fort Sam. This includes classroom and field training operations, management systems for students and faculty, and other requirements directly supporting Technical Training Groups, detachments, and various operating locations.</p>		
<p>TECHNICAL TRAINING MANAGEMENT SYSTEM (TTMS): TTMS provides AETC personnel and other users a suite of integrated and customized Commercial Off-The-Shelf (COTS)/Government Off-The-Shelf (GOTS) software products implemented in a centralized, enterprise-wide, web-based architecture for the development and administration of basic military and technical training. TTMS supports nine functions: student management, course design and development (for AETC and METC), student evaluation, statistical analysis and reporting, surveys, assessments and testing, Airman Interactive Management System (AIMS) for MTLs, Job Match/Seat Bank, and TTMS BMT for student processing.</p>		
<p>PE 0804751F Professional Military Education - P-40A Air University (AU) Education Technology (ET) Program funds the cradle-to-grave lifecycle management of IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force. As AU aggressively pursues the enhancement of processes by which educational products are delivered to students, ET/IT demands will increase in frequency and complexity. Quickly revising software and inserting technology into those processes in a timeframe adequate to realize return on investment dollars or educational benefits requires an appropriately resourced A6 organization.</p>		
<p>PE 0804752F Other Professional Education - P-40A Accreditation of AFIT's engineering programs is directly related to both the existence of the well-equipped and maintained laboratories and an institutional commitment to fund equipment and maintenance. To serve the research needs of the USAF/DoD, students have up-to-date equipment to make tangible contributions to AF research needs. Existing equipment has reached the age where the cost to maintain it is impractical.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		

PE 0901279F Facilities Operation - Administrative - P-40A

CIVIL ENGINEER'S (CE) IT TRANSFORMATION: CE IT Transformation program's mission is to transform CE's business processes to better serve the CE customers and meet AF Transformational Goals. The plan is to leverage industry best practices, optimize core business processes, and replace existing outdated IT capabilities with a set of commercial off-the-shelf (COTS) software solutions and a service provider to deploy and maintain the system. This COTS solution will provide a robust, enterprise-wide CE capability and will consist of an integrated set of embedded / configurable best business practices and capabilities to support the following CE missions: Real Property Management; Work & Supply Management; Project Management; Energy Management; Housing Management; Financial Management; Environmental Management, Planning, Emergency Services, Fire Operations and EOD.

PE 0901299F AF A1 Systems - P-40A

Provides funding for the sustainment and operation of hardware and software supporting Total Force Human Capital IT systems (RegAF, Reserve, ANG, Civilians, Retirees, and Beneficiates), network applications and infrastructure. These systems include items such as client servers, computer hardware and software, LANs, web self service and relational database management technologies and associated equipment to support all phases of the personnel life cycle, including accession, training, assignment, promotion, and retirement/separation. There are two programs:

a. MILITARY PERSONNEL DATA SYSTEM: MilPDS funding supports all AF Military Personnel Operations to include technology refresh for hardware supporting a variety of AF personnel applications such as: Automated Records Management Systems and Virtual Military Personnel Flight among others. Funding also supports MilPDS Federal Data Center Consolidation Initiative (FDCCI) compliance efforts.

b. AIR FORCE PERSONNEL OPERATIONS ACTIVITY (AFPOA) OPERATIONS: Funding provides for the procurement of the AFPOA data center infrastructure, including hardware and some software maintenance. Funding is used to support telephony requirements of the AF Total Force Service Centers at San Antonio and Denver. It also supports the Federal Data Center Consolidation Initiative (FDCCI) compliance efforts directed by Public Law 104-106 and 105-261 and DoDI 1400.25, Vol 1100.

PE 0901410F Contracting Information Technology System - P-40A

CON-IT provides a single management writing system for the Air Force contracting community to support all contracting needs including base operations, logistics, contingency and weapons system contracting world-wide. CON-IT will enable strategic sourcing and other acquisition efficiencies by standardizing data, business rules, and milestone tracking. Furthermore, CON-IT will allow for a standardized and integrated method of anticipating, reacting, and responding to the current pace and changes in process, regulation, and technology across the contract domain. CON-IT is the replacement for Standard Procurement System (SPS). When fully implemented, CON-IT will enable process changes necessary to converge on a common contract writing/management capability within the Air Force. Funding for this exhibit contained in PE 0901410F.

PE 0901538F Financial Management Information Systems Development - P-40A

PBES is a single solution software development effort that will utilize a Service Oriented Architecture (SOA) to deliver budgeting and programming capability for the United States Air Force. PBES will replace legacy systems such as the Automated Budget Interactive Data Environment System (ABIDES) and Resource Allocation Programming Information Decision System (RAPIDS) and will support the budget formulation and force programming process. Upon full deployment of PBES, the system will be compliant with the Standard Financial Information Structure (SFIS) and Standard Line of Accounting (SLOA) conventions, which will enable standardization of data across the Department of Defense (DoD). Funding for this exhibit contained in PE 0901538F.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834010 / General Information Technology

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F

Line Item MDAP/MAIS Code: CAMI

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	US Northern Command Communications				- / -	- / 3.694	- / 3.757	- / 3.819	- / -	- / 3.819
P-40a	ISR Innovations				- / -	- / 5.674	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a	Electronic Warfare Integrated Reprogramming (EWIR)				- / -	- / 0.000	- / 1.443	- / 1.466	- / -	- / 1.466
P-40a	C2ISR Tactical Data Link				- / -	- / 0.000	- / 2.290	- / 3.342	- / -	- / 3.342
P-40a	National Technical Nuclear Forensics				- / -	- / 0.000	- / 4.581	- / 5.202	- / -	- / 5.202
P-40a	Wargaming and Simulation Centers				- / -	- / 0.755	- / 0.769	- / 0.000	- / -	- / 0.000
P-40a	Distributed Training and Exercises				- / -	- / 0.000	- / 0.324	- / 0.330	- / -	- / 0.330
P-40a	Intel Data Applications				- / -	- / 0.000	- / 5.338	- / 0.344	- / 5.100	- / 5.444
P-40a	Security and Investigative Activities				- / -	- / 1.692	- / 1.722	- / 0.450	- / -	- / 0.450
P-40a	Mission Partner Environments				- / -	- / 1.873	- / 1.585	- / 0.478	- / -	- / 0.478
P-40a	Communications and Information Technology				- / -	- / 0.000	- / 0.000	- / 3.796	- / 0.000	- / 3.796
P-40a	Tactical Data Networks Enterprise				- / -	- / 6.614	- / 0.179	- / 2.407	- / -	- / 2.407
P-40a	Logistics Support Activities				- / -	- / 0.000	- / 1.435	- / 1.491	- / -	- / 1.491
P-40a	Logistics Information Technology (LOGIT)				- / -	- / 0.000	- / 0.000	- / 0.391	- / 0.000	- / 0.391
P-40a	AF LVC Operational Training (LVC-OT)				- / -	- / 0.000	- / 4.820	- / 11.986	- / -	- / 11.986
P-40a	Recruit Training Units				- / -	- / 0.799	- / 0.816	- / 0.629	- / -	- / 0.629
P-40a	Service Academies				- / -	- / 0.000	- / 0.500	- / 1.498	- / -	- / 1.498
P-40a	General Skill Training				- / -	- / 0.000	- / 0.673	- / 0.684	- / -	- / 0.684
P-40a	Professional Military Education				- / -	- / 0.964	- / 0.981	- / 0.398	- / -	- / 0.398
P-40a	Other Professional Education				- / -	- / 0.467	- / 0.475	- / 0.482	- / -	- / 0.482
P-40a	AF A1 Systems				- / -	- / 1.706	- / 3.099	- / 0.000	- / -	- / 0.000
P-40a	Contracting Information Technology System				- / -	- / 5.000	- / -	- / 0.000	- / -	- / 0.000
P-40a	Financial Management Information Systems Development				- / -	- / 5.386	- / 1.966	- / 0.694	- / -	- / 0.694
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 34.624	- / 36.753	- / 39.887	- / 5.100	- / 44.987

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0201130F US Northern Command Communications - P-40A
a. NORAD AND USNORTHCOM INTEROPERABLE COMMUNICATIONS: FY 2021 funding procures equipment and associated support that provide deployable, interoperable commercial communications capability to NORAD - USNORTHCOM Headquarters; USNORTHCOM Domestic Operations (DOMOPS), and Subordinate Commands). The system consists of deployable communications base stations, infrastructure, First Responder and DoD Joint Radio System handsets, and cellular-wireless/First Responder Network 4G LTE basebands/handsets to enable the Defense Support of Civil Authorities mission.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		
<p>b. DEPLOYABLE COMMUNICATION CAPABILITY SYSTEM LIFE CYCLE MANAGEMENT: FY 2021 funding ensures system life cycle support of the Deployable Communications Fleet, as well as, the lifecycle maintenance of these USNORTHCOM deployable communication systems. A centralized managed construct to enable the configuration management of deployable communication systems.</p> <p>PE 0207439F Electronic Warfare Integrated Reprogramming (EWIR) - P-40A FY 2021 funding will be used to replace capital equipment for the electronic warfare (EW) Threat Change Analysis and Distributed Mission Operations infrastructure and databases. Specific equipment items and quantities may change due to mission needs.</p> <p>PE 0207448F C2ISR Tactical Data Link - P-40A FY 2021 procurement of Link 16 MIDS Joint Tactical Radio System (JTRS) radios will satisfy two mandates (FAA frequency and NSA crypto), among other operational reliability and capability improvements for Link 16 tactical networks. Funding for this exhibit contained in PE 0207448F.</p> <p>PE 0207573F National Technical Nuclear Forensics - P-40A FY 2021 funding procures terrestrial-based nodes/sensor for signal detection, collection, analysis, and evaluation of a nuclear detonation. Funding also includes procurement of technical data required for production and any required initial system support. Funding was moved from BPAC 834320 starting in FY 2020.</p> <p>PE 0207697F Distributed Training and Exercises - P-40A AIR FORCE DISTRICT WASHINGTON: FY 2021 funding will be used to procure hardware, software and licensing to complete and instantiate the latest version of the Wargame Information Environment in support of CSAF and AFMAJCOMs objective priorities for Air Force Wargaming Enterprise.</p> <p>PE 0208288F Intel Data Applications - P-40A FY 2021 funds the application of Intelligence data as datasets/databases, model and simulations, and analysis for combat and combat support users. Provides for the communications infrastructures required to support Intelligence data applications.</p> <p>PE 0305128F Security and Investigative Activities - P-40A FY21 funds are required to provide AFOSI Server Virtualization, which will increase efficiency of limited system administrative staff and reduce future capital investment costs of new hardware. The virtual server environment also delivers new capability not available in a non-virtual server environment, such as rapid Information Assurance patching, automatic error detection, failover and disaster recovery of critical applications, reduce footprint from both a physical space and energy perspective. These funds will enable AFOSI standard IT equipment and specialized investigative equipment to provide the latest capabilities of specialized investigative support to DoD/USAF investigations/operations both in-garrison and in support of wartime operations, for over 3,000 AFOSI personnel in more than 250 worldwide locations.</p> <p>PE 0305173F Space and Missile Test and Evaluation Center - P-40A The Research and Development Space and Missile Operations (RDSMO) program has transferred from PE 0305173F to PE 1203173F.</p> <p>PE 0305601F Mission Partner Environments - P-40A FY 2021 funding procures hardware and software to support operations with the Mission Partners environment.</p> <p>PE 0604281F Tactical Data Networks Enterprise - P-40A FY 2021 funding provides procurement for all Tactical Data Link (TDL) enterprise efforts. This includes equipment, fielding support, and associated contract support for the fielded Family of Gateways, as well as capability enhancements to TDLs, gateways, and AF contributions to the Joint Aerial Layer Network (JALN). These airborne networking systems enable combat forces to exchange information quickly and accurately by bridging discrete airborne, terrestrial, maritime, and space-based C4ISR networks. Tactical Data Network (TDN) Planning, Analysis and Monitoring (PAM) will add capability to modernize CONUS ground-based TDL gateways. Funding for this exhibit contained in PE 0604281F.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		
<p>PE 0708012F Logistics Support Activities - P-40A FY21 funding provides technical refresh of all hardware resources for the Gunter LAN to deliver full network support. This infrastructure enables continued operational testing of the Standard Desktop Configuration (SDC) and other Microsoft products. Provides early look for AFLCMC/HI programs (Logistics systems including EDCL) to ensure seamless integration of new capabilities w/o harm to operational systems and negative impact to personnel across the AF. Daily operations of AFLCMC/HI PMOs to develop, field, sustain, and manage their assigned systems is unhindered.</p> <p>PE 0801380F AF LVC Operational Training (LVC-OT) - P-40A PE 0801380F AF LVC Operational Training (LVC-OT) SIMULATOR COMMON ARCHITECTURE REQUIREMENTS AND STANDARS (SCARS): Funding supports procurement of hardware necessary to establish a common open system architecture for Air Force simulators. FY21 efforts include, but are not limited to, site connections to the operations center.</p> <p>PE 0804711F Recruit Training Units - P-40A FY21 funding procures general information technology equipment for BASIC MILITARY TRAINING (BMT) SURVEILLANCE SECURITY SYSTEM: Basic Military Training sustains the combat capability of the Air Force (Active duty, Air National Guard and Air Force Reserve Command) with trained airmen. MTI Misconduct-Restore The Trust /Requirements associated with MTI misconduct issues at BMT. Due to the sexual misconduct by MTIs at BMT, AETC/CC directed a Commander Directed Investigation (CDI) to identify issues that place Airmen at risk in their training environment. SECAF/CSAF support findings and recommended actions to "Eliminate Detection Weakness". This effort continues the purchase, installation, and integration of a surveillance system covering common areas of the BMT facilities at JBSA-Lackland AFB for the deterrence and prosecution of misconduct. It includes hardware, system engineering/test and evaluation, site survey, infrastructure installation and support. Detailed requirements include: network switch, network storage device/upgrade package, computer monitor, site license, channel expansion license, hard drive, uninterruptable power supply, extended battery, digital monitor, cameras, and camera communication cable</p> <p>PE 0804721F Service Academies - P-40A AIR FORCE ACADEMY: FIX AIR FORCE ACADEMY MISSION NET: PEC 84721 FY21 funds (3080) are mission-critical for USAFA's multi-year project to fix disconnects/deficiencies in its University-wide WiFi systems on its mission network. Adequate WiFi will ensure USAFA meets our 10 U.S.C Section 9453 requirement to graduate & commission approximately 1,000 2Lt's each year (the lack of WiFi is a direct, causal & imminent risk to USAFA's accreditation as a degree-granting university). It will also ensure compliance with Presidential Executive Order (EO) 13800, DoDI 8510.01, NIST SP 800-53, AFIs 17-100 & 17-110, and the mobility aspects of the DepSecDef's "Accelerating Enterprise Cloud Adoption" mandate and SAF/CN's "USAF Cloud Migration" mandate. As such, it is USAFA's #1 IT priority, and mission critical.</p> <p>PE 0804731F General Skill Training - P-40A GENERAL SKILL TRAINING: FY21 funding supports procurement of electronic and telecom equipment supporting the General Skills Training enterprise, and primarily includes video equipment and training management systems equipment (other than TTMS).</p> <p>PE 0804751F Professional Military Education - P-40A FY21 funding procures IT systems, services, and resources that comprise AU Enterprise ET/IT portfolio. The primary systems under AU IT are CDSAR, STARS, AUSIS, AUSRIS, AUREPM, and AUSMS. This portfolio provides enrollment, content delivery, and student administration capabilities critical to all AU resident to all AU resident and non-resident courses. At the Air Force level, A6 provides the system of record capability for all AF PME/PCE; a system crucial to ensuring a fully prepared (trained and educated) expeditionary force.</p> <p>PE 0804752F Other Professional Education - P-40A FY21 funding provides the cradle-to-grave lifecycle management for the support and sustainment of AFIT's specialized information technology education networks with its core services for education and student research requirements. This includes: in- enrollment, content delivery, and student management and administration capabilities critical to all AFIT resident graduate / PCE students and all non-resident/DL courses.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834010 / General Information Technology
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207697F, 0305173F, 0305174F, 0305601F, 0604281F, 0804721F, 0804752F, 0901279F, 0901299F, 0901410F, 0901538F, 1203173F
Line Item MDAP/MAIS Code: CAMI		

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** US Northern Command Communications

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
INTEROPERABLE COMMUNICATION	A		-	-	-	-	-	0.526	-	-	0.526	-	-	0.526	-	-	-	-	-	0.526
DEPLOYABLE COMMUNICATIONS CAPABILITY SYSTEM LIFE CYCLE MANAGEMENT	A		-	-	-	-	-	3.168	-	-	3.231	-	-	3.293	-	-	-	-	-	3.293
EARLY WARNING RADAR (EWR) COMMUNICATIONS EQUIPMENT	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	3.694	-	-	3.757	-	-	3.819	-	-	-	-	-	3.819
Total			-	-	-	-	-	3.694	-	-	3.757	-	-	3.819	-	-	-	-	-	3.819

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** ISR Innovations

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(1). EAGLE VISION DATA ACQUISITION SYSTEM REFRESH/ CAPITAL EQUIPMENT REPLACEMENT PE 0207277F	A		-	-	-	-	-	4.277	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(3). EAGLE VISION PROGRAM MANAGEMENT ADMINISTRATION (PMA)	A		-	-	-	-	-	1.397	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Uncategorized			-	-	-	-	-	5.674	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	5.674	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:
 Due to the life cycle of commercial satellites, Eagle Vision must update the system to retain the capability of downlinking imagery. As one of the satellite constellation is decommissioned, Eagle Vision must procure hardware and software of a new satellite to allow for downlinking from the new satellite system. Currently Eagle Vision contains the hardware and software to receive downlinking form SPOT 6/7, TerraSAR-X/TANDEM-X, Worldview satellites and Pleiades 1A/1B. Eagle Vision Block II will continue to update the system to retain the capability of downlinking imagery as the life cycle of commercial satellites evolve by procuring the hardware and software of a new satellite, upgrade the dissemination performance to the Data Integration Segment (DIS), minimizing the Data Acquisition Segment (DAS), and incremental Commercial-Off-The-Shelf (COTS) integration.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4							P-1 Line Item Number / Title: 834010 / General Information Technology							Aggregated Items Title: Electronic Warfare Integrated Reprogramming (EWIR)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
EWIR Hardware																				
Client PCs	A		-	-	-	-	-	0.000	0.200	1	0.200	0.200	1	0.200	-	-	-	0.200	1	0.200
Computer Server	A		-	-	-	-	-	-	0.600	1	0.600	0.600	1	0.600	-	-	-	0.600	1	0.600
Data Storage System	A		-	-	-	-	-	-	0.438	1	0.438	0.461	1	0.461	-	-	-	0.461	1	0.461
Network Infrastructure	A		-	-	-	-	-	-	0.205	1	0.205	0.205	1	0.205	-	-	-	0.205	1	0.205
Tape Backup System	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: EWIR Hardware			-	-	-	-	-	0.000	-	-	1.443	-	-	1.466	-	-	-	-	-	1.466
Total			-	-	-	-	-	0.000	-	-	1.443	-	-	1.466	-	-	-	-	-	1.466

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

Remarks:
N/A

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834010 / General Information Technology	Aggregated Items Title: C2ISR Tactical Data Link
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
MIDS JTRS																				
Install Kits (Active) PE 0207488F	A		-	-	-	-	-	0.000	0.254	9	2.290	0.257	13	3.342	-	-	-	0.257	13	3.342
Subtotal: MIDS JTRS			-	-	-	-	-	0.000	-	-	2.290	-	-	3.342	-	-	-	-	-	3.342
Other Government Support																				
Other Government Support	A		-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Other Government Support			-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	0.000	-	-	2.290	-	-	3.342	-	-	-	-	-	3.342

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** National Technical Nuclear Forensics

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Nuclear Forensics - Prompt Diagnostics																				
Nuclear Forensics - Prompt Diagnostics	A		-	-	-	-	-	0.000	-	-	4.581	-	-	5.202	-	-	-	-	-	5.202
Subtotal: Nuclear Forensics - Prompt Diagnostics			-	-	-	-	-	0.000	-	-	4.581	-	-	5.202	-	-	-	-	-	5.202
Total			-	-	-	-	-	0.000	-	-	4.581	-	-	5.202	-	-	-	-	-	5.202

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

Remarks:
Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrial-based sensors and communications for prompt diagnostics, collection, analysis, and evaluation of a nuclear detonation. Funding also includes procurement of technical data and any required initial system support. Funding was moved from BPAC 834320 starting in FY20.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Wargaming and Simulation Centers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
WARRIOR PREPARATION CENTER PE 0207605F	A		-	-	-	-	-	0.755	-	-	0.769	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Uncategorized			-	-	-	-	-	0.755	-	-	0.769	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.755	-	-	0.769	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:
FY21: funds rephased.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834010 / General Information Technology	Aggregated Items Title: Distributed Training and Exercises
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
DISTRIBUTED TRAINING AND EXERCISES PE 0207697F	A		-	-	-	-	-	0.000	-	-	0.324	-	-	0.330	-	-	-	-	-	0.330
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.324	-	-	0.330	-	-	-	-	-	0.330
Total			-	-	-	-	-	0.000	-	-	0.324	-	-	0.330	-	-	-	-	-	0.330

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Intel Data Applications

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Intel Data Applications																				
Intel Data Applications H/W and S/W	A		-	-	-	-	-	0.000	-	-	5.338	-	-	0.344	-	-	5.100	-	-	5.444
Subtotal: Intel Data Applications			-	-	-	-	-	0.000	-	-	5.338	-	-	0.344	-	-	5.100	-	-	5.444
Total			-	-	-	-	-	0.000	-	-	5.338	-	-	0.344	-	-	5.100	-	-	5.444

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Security and Investigative Activities

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
OSI OPERATIONS PE 0305128F	A		-	-	-	-	-	1.692	-	-	1.722	-	-	0.450	-	-	-	-	-	0.450
Subtotal: Uncategorized			-	-	-	-	-	1.692	-	-	1.722	-	-	0.450	-	-	-	-	-	0.450
Total			-	-	-	-	-	1.692	-	-	1.722	-	-	0.450	-	-	-	-	-	0.450

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834010 / General Information Technology	Aggregated Items Title: Mission Partner Environments
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Mission Partner Environment																				
Mission Partner Environment	A		-	-	-	-	-	1.873	-	-	1.585	-	-	0.478	-	-	-	-	-	0.478
Subtotal: Mission Partner Environment			-	-	-	-	-	1.873	-	-	1.585	-	-	0.478	-	-	-	-	-	0.478
Total			-	-	-	-	-	1.873	-	-	1.585	-	-	0.478	-	-	-	-	-	0.478

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

Remarks:

This program transferred from Defense Information Systems Agency (DISA) to USAF in FY19.

Mission Partner Environment (MPE) enables secure sharing of operational information for collaboration between and among the U.S. and mission partners to include federal, State, local, and tribal agencies, allies, coalition members, host nations, and other nations, United States and international Non-Governmental Organizations, multinational treaty organizations, and private sector organizations. The MPE program enables the United States (US) Department of Defense (DoD) to execute its assigned missions with mission partners across the complete ranges and phases of military operations to assist combined command and control (C2) of coalition forces while meeting the information sharing requirements within existing bi-lateral and multi-lateral agreements. Also, it promotes effective information exchange and provides applications to enable effective use of the United States and Partner nation military power. MPE provides the warfighter mission with technology to improve mission effectiveness and cyber security.

In response to program decision memorandum, funding for Mission Partner Environment transferred the capabilities the Combined Enterprise Regional Information Exchange System (CENTRIXS), Pegasus, the Multinational Information Sharing (MNIS) program, the All Partners Access Network (APAN), and the Combined Federal Battle Labs Network (CBFLNet) to the Mission Partner Environment Program. MPE enables secure sharing of operational information and enhances collaboration between the US forces, and trusted allies and other multinational partners. This effort increases combat effectiveness by leveraging capabilities and information from all partners. FY21 funding procures hardware and software to support operations with the Mission Partners environment.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4						P-1 Line Item Number / Title: 834010 / General Information Technology						Aggregated Items Title: Communications and Information Technology							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
New Item	A		-	-	-	-	-	0.000	-	-	0.000	-	-	3.796	-	-	0.000	-	-	3.796
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.000	-	-	3.796	-	-	0.000	-	-	3.796
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	3.796	-	-	0.000	-	-	3.796

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834010 / General Information Technology	Aggregated Items Title: Tactical Data Networks Enterprise
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TDL PAM																				
c. TACTICAL DATA NETWORKS ENTERPRISE (PE 0604281F)	A		-	-	-	-	-	6.614	-	-	0.179	-	-	2.407	-	-	-	-	-	2.407
Subtotal: TDL PAM			-	-	-	-	-	6.614	-	-	0.179	-	-	2.407	-	-	-	-	-	2.407
Total			-	-	-	-	-	6.614	-	-	0.179	-	-	2.407	-	-	-	-	-	2.407

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834010 / General Information Technology	Aggregated Items Title: Logistics Support Activities
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
GUNTER AIR FORCE BASE NETWORK SERVICES PE 0708012F	A		-	-	-	-	-	0.000	-	-	1.435	-	-	1.491	-	-	-	-	-	1.491
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	1.435	-	-	1.491	-	-	-	-	-	1.491
Total			-	-	-	-	-	0.000	-	-	1.435	-	-	1.491	-	-	-	-	-	1.491

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4						P-1 Line Item Number / Title: 834010 / General Information Technology						Aggregated Items Title: Logistics Information Technology (LOGIT)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
New Item	A		-	-	-	-	-	0.000	-	-	0.000	-	-	0.391	-	-	0.000	-	-	0.391
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.000	-	-	0.391	-	-	0.000	-	-	0.391
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	0.391	-	-	0.000	-	-	0.391

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** AF LVC Operational Training (LVC-OT)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
SIMULATORS COMMON ARCHITECTURE REQUIREMENTS AND STANDARDS	A		-	-	-	-	-	0.000	-	-	4.820	-	-	11.986	-	-	-	-	-	11.986
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	4.820	-	-	11.986	-	-	-	-	-	11.986
Total			-	-	-	-	-	0.000	-	-	4.820	-	-	11.986	-	-	-	-	-	11.986

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Recruit Training Units

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BMT Surveillance System PE 0804711F	A		-	-	-	-	-	0.799	-	-	0.816	-	-	0.629	-	-	-	-	-	0.629
Subtotal: Uncategorized			-	-	-	-	-	0.799	-	-	0.816	-	-	0.629	-	-	-	-	-	0.629
Total			-	-	-	-	-	0.799	-	-	0.816	-	-	0.629	-	-	-	-	-	0.629

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Service Academies

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
SERVICE ACADEMIES - USAFA PE 0804721F	A		-	-	-	-	-	0.000	0.500	1	0.500	1.498	1	1.498	-	-	-	1.498	1	1.498
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.500	-	-	1.498	-	-	-	-	-	1.498
Total			-	-	-	-	-	0.000	-	-	0.500	-	-	1.498	-	-	-	-	-	1.498

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** General Skill Training

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
GEN SKILL TRAINING PE 0804731F	A		-	-	-	-	-	0.000	-	-	0.335	-	-	0.350	-	-	-	-	-	0.350
TECH TNG MANAGEMENT SYSTEM	A		-	-	-	-	-	0.000	-	-	0.338	-	-	0.334	-	-	-	-	-	0.334
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.673	-	-	0.684	-	-	-	-	-	0.684
Total			-	-	-	-	-	0.000	-	-	0.673	-	-	0.684	-	-	-	-	-	0.684

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

Remarks:
FYDP baseline data for OAC 64 ONLY.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Professional Military Education

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Professional Military Education																				
Professional Military Education PE 0804751F	A		-	-	-	-	-	0.964	-	-	0.981	-	-	0.398	-	-	-	-	-	0.398
Subtotal: Professional Military Education			-	-	-	-	-	0.964	-	-	0.981	-	-	0.398	-	-	-	-	-	0.398
Total			-	-	-	-	-	0.964	-	-	0.981	-	-	0.398	-	-	-	-	-	0.398

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** Other Professional Education

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Other Professional Education																				
OTHER PROFESSIONAL EDUCATION PE 0804752F	A		-	-	-	-	-	0.467	-	-	0.475	-	-	0.482	-	-	-	-	-	0.482
Subtotal: Other Professional Education			-	-	-	-	-	0.467	-	-	0.475	-	-	0.482	-	-	-	-	-	0.482
Total			-	-	-	-	-	0.467	-	-	0.475	-	-	0.482	-	-	-	-	-	0.482

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834010 / General Information Technology **Aggregated Items Title:** AF A1 Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
PERSONNEL SERVICE DELIVERY PE 0901299F	A		-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
MILITARY PERSONNEL DATA SYSTEM (MLPDS)	A		-	-	-	-	-	0.254	-	-	1.112	-	-	0.000	-	-	-	-	-	0.000
REGIONALIZATION OF CIV PERS SUPPORT	A		-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
AIR FORCE PERSONNEL CENTER	A		-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Air Force Personnel Operations Agency (AFPOA) Network Infrastructure	A		-	-	-	-	-	1.452	-	-	1.987	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Uncategorized			-	-	-	-	-	1.706	-	-	3.099	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	1.706	-	-	3.099	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:
FY19 funding was reduced due to under execution. FY21 funding is no longer required due to the AFPOA Data Center closure and funds were realigned to 3400 funds.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4					P-1 Line Item Number / Title: 834010 / General Information Technology										Aggregated Items Title: Contracting Information Technology System				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CON-IT																				
Software Licenses	A		-	-	-	5.000	1	5.000	-	-	-	0.000	1	0.000	-	-	-	0.000	1	0.000
Subtotal: CON-IT			-	-	-	-	-	5.000	-	-	-	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	5.000	-	-	-	-	-	0.000	-	-	-	-	-	0.000

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4					P-1 Line Item Number / Title: 834010 / General Information Technology									Aggregated Items Title: Financial Management Information Systems Development					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Program Budget Enterprise System																				
Software Licenses	A		-	-	-	5.386	1	5.386	1.966	1	1.966	0.694	1	0.694	-	-	-	0.694	1	0.694
Subtotal: Program Budget Enterprise System			-	-	-	-	-	5.386	-	-	1.966	-	-	0.694	-	-	-	-	-	0.694
Total			-	-	-	-	-	5.386	-	-	1.966	-	-	0.694	-	-	-	-	-	0.694

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834040 / Af Global Command & Control Sys
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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: 0303150F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	5.320	2.756	2.602	-	2.602	2.611	2.662	2.716	5.147	-	23.814
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	5.320	2.756	2.602	-	2.602	2.611	2.662	2.716	5.147	-	23.814
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	5.320	2.756	2.602	-	2.602	2.611	2.662	2.716	5.147	-	23.814

(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:

GLOBAL COMMAND AND CONTROL SYSTEM AIR FORCE (GCCS-AF): The GCCS-AF program provides the common AF infrastructure hardware and software necessary to pass AF command and control (C2) data among commands, their components, and the joint GCCS. This program procures GCCS components which include, but are not limited to, items such as servers, commercial-off-the-shelf (COTS) software, and associated peripherals to provide users with the full suite of joint baseline capability (including the common operating picture and Integrated Imagery & Intelligence). GCCS-AF is integrated at the following locations to establish initial and full joint connectivity and operational capability across the spectrum of intelligence, operations, war planning, manpower, and logistics: AF-supported war-fighting commands, AF critical sites, Headquarters United States Air Force, Major Command headquarters (MAJCOM), numbered air forces, wings, Air National Guard (ANG) bases, Air Force Reserve (AFR) bases, and remote sites. Each site will comply with current Air Force and Department of Defense (DoD) network initiatives by employing a standardized interface among AF base-level classified C2 networks, AF base-level network control centers, and the joint Defense Information Systems Agency (DISA) Secret Internet Protocol Router Network (SIPRNET). This program provides a flexible open system and distributed C2 architecture necessary to support the joint GCCS. GCCS supports AF operations by installing and upgrading a site's classified C2 system through extensive use of COTS technology that adheres to AF command and control, communications, and computer architectures and standards.

Funding for the exhibit contained in PE 0303150F: GLOBAL COMMAND AND CONTROL SYSTEM

The FY 21 funding request was reduced by \$1.719 million to account for the availability of prior year execution balances.

Justification:

GLOBAL COMMAND AND CONTROL SYSTEM AIR FORCE (GCCS-AF): FY21 procurement funding procures various types and quantities of hardware and software in support of installation and unit mission requirements for Air Force personnel. GCCS-AF will procure and install GCCS-Joint (GCCS-J) version 6.0 hardware and software (government-off-the-shelf and commercial-off-the-shelf) at warfighter Combatant Command (CCMD) and MAJCOM locations, providing a full spectrum of command, control, war planning, logistics, and intelligence capability from strategic to unit level operations with total joint service connectivity. The GCCS architecture supports functional users on each base and specifically incorporates war planning functions into GCCS. These fielding activities are consistent with the AF's Air Expeditionary Force (AEF) C2 structure and integration with DoD's emerging next generation joint C2 enabler.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834050 / Battlefield Airborne Control Node (BACN)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	48.478	0.000	-	0.000	0.000	50.281	0.000	113.838	-	212.597
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	48.478	0.000	-	0.000	0.000	50.281	0.000	113.838	-	212.597
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	48.478	0.000	-	0.000	0.000	50.281	0.000	113.838	-	212.597

(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 flexible, long-endurance, responsive airborne communications capability. BACN provides a dedicated airborne capability to conduct voice bridge translation, Tactical Data Link (TDL) gateway and TDL relay functions for beyond-line-of-sight (BLOS) data communications.

This BACN payload is controlled by ground stations that are comprised of multiple support elements: a Payload Control Element - Launch (PCE-L) and Payload Control Element - Mission (PCE-M), and a Rapidly Deployable Payload Control Element (RD-PCE) that provides the same PCE-L and PCE-M functionality in rapidly deployable configuration, and any additional equipment required to support BACN Payload.

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.

Justification:

This BACN payload is controlled by ground stations that are comprised of two support elements: a Payload Control Element - Launch (PCE-L) and Payload Control Element - Mission (PCE-M). The Rapidly Deployable Payload Control Element (RD-PCE) will provide the same PCE-L and PCE-M functionality in rapidly deployable configuration.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834070 / Mobility Command And Control
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	10.192	21.186	10.541	-	10.541	10.735	10.922	11.119	11.322	-	86.017
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	10.192	21.186	10.541	-	10.541	10.735	10.922	11.119	11.322	-	86.017
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	10.192	21.186	10.541	-	10.541	10.735	10.922	11.119	11.322	-	86.017

(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:

PE 0401130F C-17 Aircraft (IF) - P-40A

Roll-On Conference Capsule (ROCC), when flown with the Steel Eagle module, enables US Government senior leaders and travel staff to work, communicate, and rest during long range missions into threat areas, with the protection of the C-17A Globemaster III's defensive systems capability. After ROCC airworthiness is determined during the RDT&E phase, the first ROCC capsule will be converted to the production configuration and delivered in FY21. The second ROCC capsule will be manufactured with delivery in FY22 along with an integrated logistics support package, heavy maintenance bench equipment, training services, and three years of contractor operation and maintenance support (CO&MS). Funding provided for ROCC can be used for program management administration. Funding for this exhibit contained in PE 0401130F.

PE 0401840F AMC Command and Control System - P-40A

GLOBAL MOBILITY COMMAND AND CONTROL (C2) ARCHITECTURE AIR MOBILITY COMMAND (AMC): The AMC C2 architecture is an integrated, command-wide program that supports US Air Force airlift/air refueling missions around the globe with centralized control/decentralized execution. To execute America's Global Reach mission, Air Mobility Command's 618th Air Operations Center (AOC) plans, schedules, and directs a fleet of more than 1,100 mobility aircraft. The 618th AOC operates combat delivery, strategic airlift, air refueling, and aeromedical evacuation operations around the world. Funding for this exhibit is contained in program element (PE) 0401840F.

MOBILITY AIR FORCE (MAF) COMMAND AND CONTROL (C2) INFRASTRUCTURE: Provides base wired/wireless infrastructure equipment supporting AMC's 618th AOC and AMC's 11 bases to assure connectivity to AMC's command and control (C2) systems and to ensure they remain operational at AMC bases and operating locations. MAF C2 Infrastructure ensures connectivity with critical Air Force systems such as the Information Transport System (ITS), Global Combat Support System (GCSS) and the Global Decision Support System (GDSS); AMC's C2 systems such as the Consolidated Air Mobility Planning System (CAMPS) and Advanced Computer Flight Planning (ACFP) system and the infrastructure for Land Mobile Radio (LMR) systems across AMC providing intra-base command and control for base security, emergency management, flightline operations/maintenance, and crash response. This program element may include necessary civilian pay expenses required to manage, execute, and deliver MAF C2 capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605898F, and 0605833F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834070 / Mobility Command And Control

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	C-17 Aircraft (IF)				- / -	- / 0.000	- / 10.817	- / 0.000	- / -	- / 0.000
P-40a	AMC Command and Control System				- / -	- / 10.192	- / 10.369	- / 10.541	- / -	- / 10.541
P-40	Total Gross/Weapon System Cost				- / -	- / 10.192	- / 21.186	- / 10.541	- / -	- / 10.541

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 PE 0401840F AMC Command and Control System - P-40A

MOBILITY AIR FORCE (MAF) COMMAND AND CONTROL (C2) INFRASTRUCTURE: FY21 funding continues procurement of wired and wireless base network infrastructure equipment to include cabling, routers, bridges, hubs, repeaters and switches to ensure information technology remains current and interoperability with AMC C2 systems is maintained to meet the needs of the warfighter and AMC's worldwide mobility mission.

PE 0401130F C-17 Aircraft (IF) - P-40A
 Roll-On Conference Capsule (ROCC): No FY21 funding required. FY20 funding converts the first article ROCC to a production unit, then a second ROCC is being manufactured to deliver in FY22 with Logistics Support Package, bench equipment and training.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834070 / Mobility Command And Control **Aggregated Items Title:** C-17 Aircraft (IF)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Roll-On Conference Capsule (ROCC)																				
ROCC	A		-	-	-	-	-	0.000	10.817	1	10.817	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Roll-On Conference Capsule (ROCC)			-	-	-	-	-	0.000	-	-	10.817	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.000	-	-	10.817	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834070 / Mobility Command And Control **Aggregated Items Title:** AMC Command and Control System

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
WING LOCAL AREA NETWORK (LAN) - Network Infrastructure	A		-	-	-	10.192	1	10.192	-	-	10.369	-	-	10.541	-	-	-	-	-	10.541
Subtotal: Uncategorized			-	-	-	-	-	10.192	-	-	10.369	-	-	10.541	-	-	-	-	-	10.541
Total			-	-	-	-	-	10.192	-	-	10.369	-	-	10.541	-	-	-	-	-	10.541

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

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834130 / Air Force Physical Security System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207589F **Other Related Program Elements:** 0207522F, 0207588F, 0207589F, 0603287F, 0604287F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	725.506	101.660	297.280	96.277	56.496	152.773	117.191	122.525	113.501	122.318	-	1,752.754
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	725.506	101.660	297.280	96.277	56.496	152.773	117.191	122.525	113.501	122.318	-	1,752.754
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	725.506	101.660	297.280	96.277	56.496	152.773	117.191	122.525	113.501	122.318	-	1,752.754

(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:

PE 0101122F Air-Launched Cruise Missile (ALCM) - P-40A
 PE 0101122F - AIR LAUNCHED CRUISE MISSILE (ALCM) SECURITY SYSTEMS includes commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.

PE 0101213F Minuteman Squadrons - P-40A
 PE 0101213F MINUTEMAN SQUADRONS/Minuteman Security Equipment includes commodity security equipment including intrusion detection sensors, alarm annunciators, and surveillance systems required for nuclear warhead storage locations.

PE 0207522F Airbase Air Defense Systems (ABADS) - P-40A
 The program is required to support fielding of ABADS capabilities to detect, track, identify and defeat Counter-small Unmanned Aircraft Systems (C-sUAS) and other Rockets, Artillery, and Mortar threats. The capabilities procured are needed to protect AF installations, personnel, critical infrastructure at fixed sites, mobile and austere locations, contingency and non-contingency locations worldwide. The program will utilize rapid acquisition authorities and early prototyping initiatives to field advanced technologies to stay ahead of the threat as required.

This program includes activities that were formally funded in PE 27589F WSC 834130 for FY 2017 to FY 2020.

PE 0207588F Air Base Ground Defense - P-40A
 Air Base Ground Defense (ABGD) will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for] wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, ABGD will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207589F **Other Related Program Elements:** 0207522F, 0207588F, 0207589F, 0603287F, 0604287F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Air-Launched Cruise Missile (ALCM)				- / -	- / 1.775	- / 1.806	- / 0.000	- / -	- / 0.000
P-40a	Minuteman Squadrons				- / -	- / 0.758	- / 0.772	- / 0.000	- / -	- / 0.000
P-40a	Airbase Air Defense Systems (ABADS)				- / -	- / 0.000	- / 0.000	- / 9.108	- / 18.922	- / 28.030
P-40a	Air Base Ground Defense				- / -	- / 43.787	- / 109.018	- / 47.568	- / 37.574	- / 85.142
P-40a	Base Physical Security Systems				- / 725.506	- / 55.340	- / 99.781	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / IBDS-2 (Capability Improvement)		A		- / -	- / -	- / 85.903	- / 39.601	- / 0.000	- / 39.601
P-40	Total Gross/Weapon System Cost				- / 725.506	- / 101.660	- / 297.280	- / 96.277	- / 56.496	- / 152.773

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Air-Launched Cruise Missile (ALCM)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Minuteman Squadrons				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Airbase Air Defense Systems (ABADS)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Air Base Ground Defense				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Base Physical Security Systems				- / 0.000	- / 46.629	- / 52.524	- / 60.602	- / 0.000	- / 1,040.382
P-3a	1 / IBDS-2 (Capability Improvement)		A		- / 50.711	- / 4.966	- / 0.000	- / -	- / -	- / 181.181
P-40	Total Gross/Weapon System Cost				- / 117.191	- / 122.525	- / 113.501	- / 122.318	- / -	- / 1,752.754

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 PE 0207522F Airbase Air Defense Systems (ABADS) - P-40A
 FY21 Funding is necessary to combat and deter the proliferation of commercial, military grade and crudely manufactured small fixed-wing and rotary-wing Counter-small Unmanned Aircraft Systems (C-sUAS) in use around the globe. These items must be effective across the entire spectrum of conflict, from maintaining safety of flight in peacetime to high intensity conflict with a Near-Peer or Nation-State. The funds will advance mature systems and early prototyping for promising science and technology that are candidates for rapid fielding. Funding will also support operational test and evaluation; verification and validation in support of Joint and Air Force urgent operational and emerging operational needs.

New PE 0207522F AIRBASE AIR DEFENSE SYSTEMS (ABADS)

PE 0207588F Air Base Ground Defense - P-40A
 Air Base Ground Defense, (ABGD): FY21 funds Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for] wheeled

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834130 / Air Force Physical Security System
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207589F	Other Related Program Elements: 0207522F, 0207588F, 0207589F, 0603287F, 0604287F
Line Item MDAP/MAIS Code: N/A		
tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, ABGD will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts.		
Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:		
<ul style="list-style-type: none">(a) FY 2022 Cost Delta: 66.480 million(b) FY 2023 Cost Delta: 70.930 million(c) FY 2024 Cost Delta: 60.977 million(d) FY 2025 Cost Delta: 61.716 million(e) FY Total Cost Delta: 531.191 million		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Items Title:** Air-Launched Cruise Missile (ALCM)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
AIR LAUNCHED CRUISE MISSILE (ALCM) SECURITY SYSTEMS	A		-	-	-	-	-	1.775	-	-	1.806	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Uncategorized			-	-	-	-	-	1.775	-	-	1.806	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	1.775	-	-	1.806	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834130 / Air Force Physical Security System	Aggregated Items Title: Minuteman Squadrons
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
Minuteman Security Equipment	A		-	-	-	-	-	0.758	-	-	0.772	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Uncategorized			-	-	-	-	-	0.758	-	-	0.772	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.758	-	-	0.772	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Items Title:** Airbase Air Defense Systems (ABADS)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AIRBASE AIR DEFENSE SYSTEM (ABADS)																				
ABADS	A		-	-	-	-	-	0.000	-	-	0.000	-	-	9.108	-	-	18.922	-	-	28.030
Subtotal: AIRBASE AIR DEFENSE SYSTEM (ABADS)			-	-	-	-	-	0.000	-	-	0.000	-	-	9.108	-	-	18.922	-	-	28.030
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	9.108	-	-	18.922	-	-	28.030

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Items Title:** Air Base Ground Defense

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Physical Security Systems																				
Air Force Tactical Security Equipment	A		-	-	-	-	-	-	-	2.099	-	-	6.097	-	-	-	-	-	6.097	
Base Security Zone	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Al Dhafra	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Log Det (EDI)	A		-	-	-	-	-	43.787	-	-	106.919	-	-	41.471	-	-	37.574	-	79.045	
Subtotal: Physical Security Systems			-	-	-	-	-	43.787	-	-	109.018	-	-	47.568	-	-	37.574	-	85.142	
Total			-	-	-	-	-	43.787	-	-	109.018	-	-	47.568	-	-	37.574	-	85.142	

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834130 / Air Force Physical Security System **Aggregated Modification Items Title:** Base Physical Security Systems

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFPSS4 / Base Physical Security Systems			-	-	114.215	-	-	0.238	-	-	0.608	-	-	-	-	-	-	-	-	
CENTCOM / C-sUAS CENTCOM JUON			-	-	157.144	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	
CSUAS1 / C-sUAS STRATCOM JEON			-	-	195.918	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	
CSUAS2 / C-sUAS			-	-	112.500	-	-	11.572	-	-	98.000	-	-	-	-	-	-	-	-	
EUJUON / C-sUAS EUCOM JUON			-	-	61.260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IBDSS-1 / IBDSS-1			-	-	84.469	-	-	43.530	-	-	1.173	-	-	-	-	-	-	-	-	
IBDSS-3 / IBDSS-3			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			-	-	725.506	-	-	55.340	-	-	99.781	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFPSS4 / Base Physical Security Systems			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115.061	
CENTCOM / C-sUAS CENTCOM JUON			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157.144	
CSUAS1 / C-sUAS STRATCOM JEON			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195.918	
CSUAS2 / C-sUAS			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	222.072	
EUJUON / C-sUAS EUCOM JUON			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61.260	
IBDSS-1 / IBDSS-1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129.172	
IBDSS-3 / IBDSS-3			-	-	-	-	-	46.629	-	-	52.524	-	-	60.602	-	-	-	-	159.755	
Total			-	-	0.000	-	-	46.629	-	-	52.524	-	-	60.602	-	-	0.000	-	1,040.382	

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
AFPSS4 / Base Physical Security Systems	Bases	Capability Improvement
CENTCOM / C-sUAS CENTCOM JUON	Bases	Capability Improvement
CSUAS1 / C-sUAS STRATCOM JEON	Bases	Capability Improvement
CSUAS2 / C-sUAS	Bases	Capability Improvement
EUJUON / C-sUAS EUCOM JUON	Bases	Capability Improvement

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force	Date: February 2020
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Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834130 / Air Force Physical Security System	Aggregated Modification Items Title: Base Physical Security Systems
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Item Number / Title	Models of Systems Affected	Modification Type
IBDSS-1 / IBDSS-1	Bases	Capability Improvement
IBDSS-3 / IBDSS-3	Bases	Capability Improvement

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834130 / Air Force Physical Security System	Modification Number / Title: 1 / IBDSS-2

ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	85.903	39.601	0.000	39.601	50.711	4.966	0.000	-	-	181.181
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	85.903	39.601	0.000	39.601	50.711	4.966	0.000	-	-	181.181
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	85.903	39.601	0.000	39.601	50.711	4.966	0.000	-	-	181.181
<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:

INTEGRATED BASE DEFENSE SECURITY SYSTEM (IBDSS-2): Reduces the risk to AF personnel; nuclear (PL-1N), and non-nuclear (PL 1-4) assets (weapon systems, aircraft, command & control systems, etc.) and facilities (hangars, SCIFs, etc.) at AF and ANG installations globally. DoD downsizing, reductions in forward basing, and aircraft technology advances evolved AF weapons systems into increasingly valuable national power projection capabilities. However, the security afforded most AF aircraft, weapon systems, other critical resources, and associated personnel and facilities in terms of equipment or manpower has not kept pace with the changing world environment, state-of-the-art technology and potential threats. The emergence of Remotely Piloted Aircraft (RPA) has led to additional command, control and communications nodes that require commensurate protection level security efforts to enable effective Air Force power projection. Force Protection IBDSS projects support long-term physical security requirements which allow installation commanders and security forces to adapt to, and counter, enduring and emergent threats to high priority assets in accordance with home station and the Aerospace Expeditionary Force concept. This continuing effort was previously named Base Physical Security Systems and is not a New Start.

INTEGRATED BASE DEFENSE SECURITY SYSTEM (IBDSS-2): FY21 Funding is provided for procurement, installation, integration, training, acceptance testing, and Interim Contractor Support (ICS) for Base Physical Security Systems (BPSS) Intrusion Detection Systems (IDS). The funding also procures, installs and sustains a variety of electronic security alarms, sensors, and related systems to detect and provide early warning of potential threats against Air Force Protection Level (PL) 1,2,3, and 4 mission critical assets. Funding also supports the Nuclear (PL-1N) Weapon Storage Areas (WSAs) located throughout the CONUS and vault storage areas at main operating bases in Europe to meet long term physical security requirements in the face of enduring and emerging threats. This also includes upgrading existing system to ensure required capability for vault storage areas and associated intrusion detection, access control and assessment systems requirements, In Accordance With (IAW) USAF, EUCOM and NATO/SHAPE requirements. The funds also provide for upgrades, refurbishment, replacement or installation of new fences (required for sensor platforms) and/or lighting systems (to support the surveillance/assessment functions). Due to world-wide operational mission events, quantities are subject to change. IBDSS-2 will procure Tactical Automated Security Systems (TASS) and other tactical/expeditionary equipment that is required to provide robust force protection capabilities worldwide; flight-line security, aircraft, intelligence, surveillance, and reconnaissance assets, critical infrastructure, sustained sortie generation and air operations, advanced technology force multipliers to include: night vision and thermal imagery equipment, counter sniper/battery capabilities, ground weapons, target acquisition radar, inter operable tactical communications, [required C3 and protective standoff equipment for]wheeled tactical [non-tactical], armored [un-armored] vehicles, tactical sensors systems, and unit/personnel protective field equipment. Additionally, IBDSS-2 will procure all required Technology Integration Management (TIM) and associated integration and interoperability efforts. Defender Multi-Domain Command, Control and Communications (DMDC3) - The DMDC3 initiative will rapidly develop the foundational structure of IBDSS to provide a platform that integrates the computing power, the means of communication, and the tools for situational awareness.

Milestone/Development Status

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834130 / Air Force Physical Security System	Modification Number / Title: 1 / IBDSS-2
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>For Force Protection Commercial Off The Shelf (FP COTS) market research, evaluation and testing. The FP COTS testing applies to all available technologies (delay, denial, detection, assessment, communication display, access control and power) which are considered effective for AF physical security use. This program supports the maintenance and test support at Site C 3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46th Test Wing (TW) as a Major Range and Test facility, conducting developmental and operational testing as the primary mission.</p> <p>Continuing COTS and Modified COTS for system equipment as it becomes obsolete.</p>		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4				P-1 Line Item Number / Title: 834130 / Air Force Physical Security System						Modification Number / Title: 1 / IBDSS-2			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Bases				Modification Type: Capability Improvement				Related RDT&E PEs: 0603287F, 0604287F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> IBDSS-2													
B Kits													
Recurring													
IBDSS-2:EQUIPMENT Group B (Active)	- / -	- / -	9 / 21.184	3 / 6.272	- / -	3 / 6.272	4 / 10.099	- / -	- / -	- / -	- / -	16 / 37.555	
<i>Subtotal: Recurring</i>	- / -	- / -	- / 21.184	- / 6.272	- / -	- / 6.272	- / 10.099	- / -	- / -	- / -	- / -	- / 37.555	
<i>Subtotal: IBDSS-2</i>	- / -	- / -	- / 21.184	- / 6.272	- / -	- / 6.272	- / 10.099	- / -	- / -	- / -	- / -	- / 37.555	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / 21.184	- / 6.272	- / -	- / 6.272	- / 10.099	- / -	- / -	- / -	- / -	- / 37.555	
Support (All Modification Items)													
A&AS	- / -	- / -	- / 15.604	- / 17.277	- / -	- / 17.277	- / 17.595	- / 4.966	- / -	- / -	- / -	- / 55.442	
PMA - Contractor Services	- / -	- / -	- / 0.000	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / -	- / -	- / 1.440	- / 0.503	- / -	- / 0.503	- / 0.540	- / 0.000	- / -	- / -	- / -	- / 2.483	
ICS-Labor	- / -	- / -	- / 0.000	- / 1.589	- / -	- / 1.589	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 1.589	
<i>Subtotal: Support</i>	- / -	- / -	- / 17.044	- / 19.369	- / -	- / 19.369	- / 18.135	- / 4.966	- / -	- / -	- / -	- / 59.514	
Installation													
<i>Modification Item 1 of 1:</i> IBDSS-2													
<i>Subtotal: Installation</i>	- / -	- / -	9 / 47.675	3 / 13.960	- / -	3 / 13.960	4 / 22.477	- / -	- / -	- / -	- / -	16 / 84.112	
<i>Subtotal: Installation</i>	- / -	- / -	9 / 47.675	3 / 13.960	- / -	3 / 13.960	4 / 22.477	- / -	- / -	- / -	- / -	16 / 84.112	
Total													
Total Cost (Procurement + Support + Installation)	-	-	85.903	39.601	0.000	39.601	50.711	4.966	0.000	-	-	181.181	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834130 / Air Force Physical Security System	Modification Number / Title: 1 / IBDSS-2
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 1 of 1: IBDSS-2

Manufacturer Information

Manufacturer Name: Commercial Off The Shelf	Manufacturer Location: Multiple
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Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 8
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Jan 2020	Jan 2021	Jan 2022			
Delivery Dates		Sep 2020	Sep 2021	Sep 2022			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	9 / 47.675	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 47.675
FY 2021	- / -	- / -	- / -	3 / 13.960	- / -	3 / 13.960	- / -	- / -	- / -	- / -	- / -	3 / 13.960
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	4 / 22.477	- / -	- / -	- / -	- / -	4 / 22.477
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	9 / 47.675	3 / 13.960	- / -	3 / 13.960	4 / 22.477	- / -	- / -	- / -	- / -	16 / 84.112

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	7	2	-	-	-	1	2	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	0	16
Out	0	-	-	-	-	-	-	-	-	-	-	7	2	-	-	1	2	-	-	1	2	1	-	-	-	-	-	-	-	0	16

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207429F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	46.420	227.598	282.893	195.185	-	195.185	222.558	177.931	178.051	170.354	-	1,500.990
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	46.420	227.598	282.893	195.185	-	195.185	222.558	177.931	178.051	170.354	-	1,500.990
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	46.420	227.598	282.893	195.185	-	195.185	222.558	177.931	178.051	170.354	-	1,500.990

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

Initial Spares (<i>\$ in Millions</i>)	-	14.035	2.322	8.241	-	8.241	-	-	-	-	-	24.598
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Combat Training Ranges (CTR) program procures electronic telecommunication and instrumentation equipment and threat systems for training ranges worldwide to satisfy air combat and electronic warfare (EW) training capability requirements. It also procures range scoring systems and replacement equipment for electronics no longer logistically supportable. Funds may be used to address production Diminishing Manufacturing Sources and Material Shortages(DMSMS)/Obsolescence issues through studies, bridge buys, life of type buys, supplier parts replacement and qualification activities to preserve future production capabilities and capacities.

JOINT THREAT EMITTER (JTE): JTE is designed to train aircrews to survive in a combat environment against Surface-to-Air Missile (SAM) and Air Defense Artillery (ADA) threats. The JTE simulates a range of threat signals, in multiple emitter kits, which interact with the aircraft radar warning receiver and electronic countermeasure system to provide realistic EW training environments for aircrew. The JTE leverages Commercial-Off-The Shelf (COTS) where possible to provide digital signal generation and feedback across its range of threats. The JTE system uses a Command-and-Control Unit (C2U) to operate a Threat Emitter Unit (TEU) contributing to a realistic threat environment for 4th and 5th Generation aircraft. Funding will also be used to purchase services applicable to the acquisition, site activation and implementation of the ground system including range site surveys, installation and training. The program procures new systems, retrofits fielded legacy JTE systems, and procures modifications for obsolete components of the fielded JTE fleet to extend their serviceable life.

ADVANCED RADAR THREAT SYSTEM VARIANT 1 (ARTS-V1): ARTS-V1 program will procure long-range strategic SAM threat training systems. ARTS-V1 is designed to be used at Department of Defense (DoD) training ranges for aircrew training and tactics development to increase combat effectiveness and aircrew survivability by training aircrews to engage or defend against an advanced SAM threat before encountering it in actual combat. While various aircraft platforms may train against ARTS-V1, the focus of the program is to deliver realistic threat replication meant to stress 5th Generation aircraft capabilities.

ADVANCED RADAR THREAT SYSTEM VARIANT 2 (ARTS-V2): The ARTS-V2 program will procure threat training systems based on an advanced tactical, mobile, short/medium range foreign fielded SAM radar threat system. ARTS-V2 is designed to be used at Department of Defense (DoD) training ranges for aircrew training and tactics development to increase combat effectiveness and aircrew survivability by training aircrews to engage or defend against an advanced SAM threat before encountering it in actual combat. Various aircraft platforms will train against ARTS-V2, but the focus of the program is on creation of realistic threats meant to stress 5th Generation aircraft capabilities.

RANGE EQUIPMENT: This effort delivers range infrastructure and equipment in order to monitor and control an extended, realistic target environment for simulated ordnance delivery and provide scoring, feedback and debriefing to the aircrew. This effort includes, but is not limited to, the Joint Advanced Weapon Scoring System (JAWSS) program, which consists of Navy-developed scoring and feedback systems that provide weapon impact and laser spot scoring on bombing and gunnery ranges, EW threat subsystems such as noise and spoofing jammers and ground based laser countermeasures and directed lasers

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834190 / Combat Training Ranges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207429F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

as well as radar and detection systems, data link connectivity, target shells, simulations and concealments, integrated air combat training instrumentation for range-less and tethered ground systems, and Range Safety Systems (RSS).

RANGE COMMUNICATIONS: The Range Infrastructure Modernization Communication (RIMCOMM) program provides communication systems to connect various air defense threat radar systems on Air Force ranges to simulate an Integrated Air Defense System (IADS) and to provide blue force command and control for range operations. Infrastructure modernization includes replacing obsolete equipment, establishing a common infrastructure to support War Rooms and a future Live Mission Operations Capability (LMOC) enabling improved mission debriefs and Live, Virtual, Constructive (LVC) aircrew training, and standardization of all training range communications systems to support LVC training missions. This program focuses on procurement of range communication infrastructure equipment, including fiber optic cabling, microwave, Ultra High Frequency (UHF), and Very High Frequency (VHF) radios and antennas, data links and repeater stations, power subsystems, control systems, Air Combat Training System (ACTS) ground systems, and cryptological equipment for unclassified and secure communications for all Combat Training Ranges, in addition to studies, analysis, and integration efforts for range command and control, LVC training, and enhanced debrief capabilities.

MODERNIZATION SYSTEMS: This program procures modifications for multiple legacy Range Threat Systems (RTS) to extend their serviceable life. RTS efforts include Multiple Threat Emitter System (MUTES), Miniature Multiple Threat Emitter System (Mini-MUTES), Modular Threat Emitter (MTE) system, Tactical Radar Threat Generator (TRTG) system, Band Simulator (Band Sim), Unmanned Modular Threat Emitter (UMTE) system, legacy Joint Threat Emitter (JTE) systems and other radar systems fielded throughout the combat training range enterprise. The program may procure depot stand-up tools such as software support workstations.

COMMON ELECTRONIC ATTACK RECEIVER (CEAR): The CEAR program replaces the obsolete Electronic Attack Receivers (EAR) on legacy threat systems such as the Unmanned Threat Emitter (UMTE), the Joint Threat Emitter (JTE), and the Miniature Multiple Threat Emitter System (Mini-MUTES). The CEAR provides real-time and recorded electronic warfare feedback to Combat Air Force (CAF) aircrews, improving their survivability in anti-access/area denial combat environments.

Funding for this exhibit contained in PE 0207429F Combat Training Ranges

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	8	8	0	0	0	-	-	-	-
	Total Obligation Authority	187.598	282.893	195.185	0.000	195.185	-	-	-	-
AFNG	Quantity	6	0	0	0	0	-	-	-	-
	Total Obligation Authority	40.000	0.000	0.000	0.000	0.000	-	-	-	-
AFR	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000	-	-	-	-
Total: Secondary Distribution	Quantity	14	8	0	0	0	-	-	-	-
	Total Obligation Authority	227.598	282.893	195.185	0.000	195.185	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0207429F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Advanced Radar Threat System V1		B		- / 0.000	- / 0.000	- / 0.000	- / 14.730	- / 0.000	- / 14.730
P-5	Advanced Radar Threat System V2	P-5a	B		- / -	- / -	- / 23.761	- / 104.660	- / -	- / 104.660
P-40a	CEAR MODS				- / 0.300	- / 7.636	- / 1.000	- / 0.000	- / 0.000	- / 0.000
P-5	Modernization Systems		A		- / -	- / 0.750	- / 0.750	- / 5.768	- / -	- / 5.768
P-5	JTE		A		- / 37.089	12 / 82.568	5 / 48.458	- / 2.939	- / -	- / 2.939
P-40a	JTE				- / 9.031	- / 1.707	- / 1.735	- / 0.000	- / 0.000	- / 0.000
P-40a	RIMCOMM AND RANGE EQUIP				- / -	- / 134.937	- / 207.189	- / 67.088	- / -	- / 67.088
P-40	Total Gross/Weapon System Cost				- / 46.420	- / 227.598	- / 282.893	- / 195.185	- / -	- / 195.185

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Advanced Radar Threat System V1		B		- / -	- / -	- / -	- / -	- / -	- / -
P-5	Advanced Radar Threat System V2	P-5a	B		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	CEAR MODS				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 8.936
P-5	Modernization Systems		A		- / -	- / -	- / -	- / -	- / -	- / -
P-5	JTE		A		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	JTE				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 12.473
P-40a	RIMCOMM AND RANGE EQUIP				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 222.558	- / 177.931	- / 178.051	- / 170.354	- / -	- / 1,500.990

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 This program, ARTS V1 P-5, is a new start.

ARTS V1: FY21 funding procures long-lead, non-end item components for amplifier assemblies and antenna arrays.

ARTS-V2: FY21 funding procures six ARTS-V2 threat systems (which includes the radar cross section shells).

RANGE EQUIPMENT: FY21 funding supports the replacement and expansion of range infrastructure and equipment that is no longer logistically supportable in order to monitor and control an extended, realistic target environment for simulated ordnance delivery and aircrew training for airborne laser designators.

MODERNIZATION SYSTEMS: FY21 funding procures replacement of one obsolete Band Sim control shelter. The shelters are critical to operate the Band Sim Range Threat System.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834190 / Combat Training Ranges
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0207429F	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:

- (a) FY 2022 Cost Delta: 222.558 million
- (b) FY 2023 Cost Delta: 177.931 million
- (c) FY 2024 Cost Delta: 178.051 million
- (d) FY 2025 Cost Delta: 170.354 million
- (e) FY Total Cost Delta: 1,479.581 million

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: Advanced Radar Threat System V1

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	14.730	0.000	14.730
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	14.730	0.000	14.730
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	14.730	0.000	14.730

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

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

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Advanced Radar Threat System V1 Cost																		
Recurring Cost																		
Equipment	-	-	0.000	-	-	0.000	-	-	0.000	-	-	14.730	-	-	0.000	-	-	14.730
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	14.730	-	-	0.000	-	-	14.730
<i>Subtotal: Hardware - Advanced Radar Threat System V1 Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	14.730	-	-	0.000	-	-	14.730
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	14.730	-	-	0.000	-	-	14.730

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	-	-	-	-	-
Quantity	-	-	-	-	-
Total Obligation Authority	0.000	0.000	14.730	0.000	14.730
Total: Secondary Distribution	0.000	0.000	14.730	0.000	14.730
Quantity	-	-	-	-	-
Total Obligation Authority	0.000	0.000	14.730	0.000	14.730

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: Advanced Radar Threat System V2

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	23.761	104.660	-	104.660
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	23.761	104.660	-	104.660
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	23.761	104.660	-	104.660

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Advanced Radar Threat System V2 Cost																		
Recurring Cost																		
Equipment ^(†)	-	-	-	-	-	-	22.661	1	22.661	16.260	6	97.560	-	-	-	16.260	6	97.560
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	22.661	-	-	97.560	-	-	-	-	-	97.560
<i>Subtotal: Hardware - Advanced Radar Threat System V2 Cost</i>	-	-	-	-	-	-	-	-	22.661	-	-	97.560	-	-	-	-	-	97.560
Support - Advanced Radar Threat System V2 Cost																		
ARTS V2 PMA	-	-	-	-	-	-	-	-	1.100	-	-	7.100	-	-	-	-	-	7.100
<i>Subtotal: Support - Advanced Radar Threat System V2 Cost</i>	-	-	-	-	-	-	-	-	1.100	-	-	7.100	-	-	-	-	-	7.100
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	23.761	-	-	104.660	-	-	-	-	-	104.660

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	-	23.761	104.660	-	104.660
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	-	23.761	104.660	-	104.660

(†) indicates the presence of a P-5a

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: Advanced Radar Threat System V2
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Equipment		2020	Lockheed Martin / Gran Prairie, TX	C / FFP	AFLCMC Hill AFB	Sep 2021	Jun 2022	1	22.661	N	Mar 2020	
Equipment		2021	Lockheed Martin / Gran Prairie, TX	C / FFP	AFLCMC Hill AFB	Sep 2021	Jun 2022	6	16.260	N	Mar 2021	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Aggregated Modification Items Title: CEAR MODS
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Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CTR02 / CEAR UMTE Mod			-	-	0.300	-	-	7.636	-	-	1.000	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	7.636	-	-	1.000	-	-	-	-	-	-	-	-	
Total			-	-	0.300	-	-	7.636	-	-	1.000	-	-	0.000	-	-	0.000	-	0.000	
Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CTR02 / CEAR UMTE Mod			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.936	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	8.936	

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
CTR02 / CEAR UMTE Mod	CombatTrainingRange	Capability Improvement

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: Modernization Systems
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.750	0.750	5.768	-	5.768
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.750	0.750	5.768	-	5.768
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.750	0.750	5.768	-	5.768

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - DTR Cost																		
Recurring Cost																		
Digital Threat Relevancy	-	-	-	-	-	-	-	-	-	5.599	1	5.599	-	-	-	5.599	1	5.599
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	5.599	-	-	-	-	-	5.599
<i>Subtotal: Hardware - DTR Cost</i>	-	-	-	-	-	-	-	-	-	-	-	5.599	-	-	-	-	-	5.599
Support - DTR Cost																		
Digital Threat Relevancy PMA	-	-	-	-	-	0.750	-	-	0.750	-	-	0.169	-	-	-	-	-	0.169
<i>Subtotal: Support - DTR Cost</i>	-	-	-	-	-	0.750	-	-	0.750	-	-	0.169	-	-	-	-	-	0.169
Gross/Weapon System Cost	-	-	-	-	-	0.750	-	-	0.750	-	-	5.768	-	-	-	-	-	5.768

Remarks:
DTR procurement funds support replacement of 1 Band Sim Control Shelter.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	0.750	0.750	5.768	-	5.768
Total:	Quantity	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Air Force			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4		P-1 Line Item Number / Title: 834190 / Combat Training Ranges		Item Number / Title [DODIC]: Modernization Systems		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	0.750	0.750	5.768	-	5.768

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: JTE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	12	5	-	-	-
Gross/Weapon System Cost (\$ in Millions)	37.089	82.568	48.458	2.939	-	2.939
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	37.089	82.568	48.458	2.939	-	2.939
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	37.089	82.568	48.458	2.939	-	2.939

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

Initial Spares (\$ in Millions)	-	14.035	2.322	8.241	-	8.241
Gross/Weapon System Unit Cost (\$ in Millions)	-	6.881	9.692	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - JTE Cost																		
Recurring Cost																		
JTE Threat Emitter Unit (TEU)	5.712	5	28.560	6.542	2	13.084	-	-	-	-	-	-	-	-	-	-	-	-
JTE Fixed Command & Control Unit (FC2U)	0.658	5	3.290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JTE Wideband Threat Emitter Unit (WTEU)	5.239	1	5.239	5.239	12	62.868	5.370	5	26.850	-	-	-	-	-	-	-	-	-
JTE Spares	-	-	-	-	-	-	-	-	10.088	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	37.089	-	-	75.952	-	-	36.938	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - JTE Cost</i>	-	-	37.089	-	-	75.952	-	-	36.938	-	-	-	-	-	-	-	-	-
Support - JTE Cost																		
A&AS (PMA)	-	-	-	-	-	1.840	-	-	1.540	-	-	1.910	-	-	-	-	-	1.910
PMA	-	-	-	-	-	0.010	-	-	0.010	-	-	0.010	-	-	-	-	-	0.010
Support	-	-	-	-	-	4.766	-	-	9.970	-	-	1.019	-	-	-	-	-	1.019
<i>Subtotal: Support - JTE Cost</i>	-	-	-	-	-	6.616	-	-	11.520	-	-	2.939	-	-	-	-	-	2.939
Gross/Weapon System Cost	-	-	37.089	6.881	12	82.568	9.692	5	48.458	-	-	2.939	-	-	-	-	-	2.939

Remarks:

- Support includes JTE end item engineering change proposals, training, and travel

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834190 / Combat Training Ranges	Item Number / Title [DODIC]: JTE
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	6	5	-	-	-
	Total Obligation Authority	42.568	48.458	2.939	-	2.939
AFNG	Quantity	6	-	-	-	-
	Total Obligation Authority	40.000	-	-	-	-
Total: Secondary Distribution	Quantity	12	5	-	-	-
	Total Obligation Authority	82.568	48.458	2.939	-	2.939

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4					P-1 Line Item Number / Title: 834190 / Combat Training Ranges										Aggregated Modification Items Title: JTE				

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CTR01 / Combat Training Ranges Joint Threat Emitter			-	-	9.031	-	-	1.707	-	-	1.735	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	1.707		-	1.735		-	0.000		-	-		-	0.000
Total			-	-	9.031	-	-	1.707	-	-	1.735	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CTR01 / Combat Training Ranges Joint Threat Emitter			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.473
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		-	-		-	-		-	-
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	12.473

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
CTR01 / Combat Training Ranges Joint Threat Emitter	JointThreatEmitter	Service Life Extension

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834190 / Combat Training Ranges **Aggregated Items Title:** RIMCOMM AND RANGE EQUIP

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
RIMCOMM																				
RIMCOMM Projects	A		-	-	-	-	-	64.237	-	-	83.151	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	64.237	-	-	83.151	-	-	-	-	-	-	-	-	-
Subtotal: RIMCOMM			-	-	-	-	-	64.237	-	-	83.151	-	-	-	-	-	-	-	-	-
Range Equipment																				
Range Equipment Projects	A		-	-	-	-	-	18.115	-	-	52.638	-	-	67.088	-	-	-	-	-	67.088
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	18.115	-	-	52.638	-	-	67.088	-	-	-	-	-	67.088
Radar Signal Emulators	A		-	-	-	23.625	2	47.250	20.900	2	41.800	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	2	47.250	-	2	41.800	-	-	-	-	-	-	-	-	-
Mobile Radar System	A		-	-	-	-	-	-	29.600	1	29.600	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	1	29.600	-	-	-	-	-	-	-	-	-
Subtotal: Range Equipment			-	-	-	-	-	65.365	-	-	124.038	-	-	67.088	-	-	-	-	-	67.088
Support																				
RSE PMA	A		-	-	-	-	-	5.335	-	-	0.000	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	5.335	-	-	0.000	-	-	-	-	-	-	-	-	-
Subtotal: Support			-	-	-	-	-	5.335	-	-	0.000	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	134.937	-	-	207.189	-	-	67.088	-	-	-	-	-	67.088

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

- Remarks:**
- Range Equipment funding supports capabilities for 5th Generation aircraft training and readiness, standardization of equipment in the range war rooms, and increased requirement to support advanced systems.
 - Radar Signal Emulators (RSE) fielding at Joint Pacific Alaska Range Complex.
 - Mobile Radar System (MRS) will field at Nevada Test and Training Range.
 - Support for sustainment and modernization of legacy and Operational Training Infrastructure Investments (i.e. Link-16 radios, communication pipes, War Room infrastructure).

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834210 / Minimum Essential Emergency Comm N

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	140.875	132.648	29.664	-	29.664	63.552	40.638	47.557	44.279	-	499.213
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	140.875	132.648	29.664	-	29.664	63.552	40.638	47.557	44.279	-	499.213
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	140.875	132.648	29.664	-	29.664	63.552	40.638	47.557	44.279	-	499.213

(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 Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

Global Aircrew Strategic Network Terminal (Global ASNT) replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces and Munitions Support Squadrons (MUNSS) and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews.

Global ASNT is being fielded in separate capability increments.

Global ASNT Inc 1 fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical - Terminal (SMART-T) equipment. FY15 was the first year of Increment 1 procurement funding to support pre-production activities. The majority of pre-production support activities were conducted in FY17 and FY18 in advance of the Milestone C decision in 3QFY19.

RDT&E funding for this exhibit is contained in PE 0303131F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834210 / Minimum Essential Emergency Comm N

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Minimum Essential Emergency Comm N		B		- / -	- / 140.875	- / 132.648	- / 29.664	- / -	- / 29.664
P-40	Total Gross/Weapon System Cost				- / -	- / 140.875	- / 132.648	- / 29.664	- / -	- / 29.664

*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:
 Global ASNT Increment 1 FY2020 funds will support production activities including preparation and planning for depot standup, engineering activities, schedule preparation and planning, production configuration control, production roadmap activities, procurement of 42 production kits, site installations, and initiate interim contractor support (ICS).

 FY2020 funds also include purchases of Electronic Security Systems (ESS) to provide Physical Security Level 3 (PL-3) protection for Global ASNT antennas. Global ASNT is replacing a PL-4 asset.

 FY2021 funds will support installation, ICS, and Program Office activities including planning for depot standup, engineering activities, schedule preparation and planning, and production configuration and control.

 This program has overarching diminishing manufacturing sources (DMS) requirements and as such may need to use procurement funding to address these requirements.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834210 / Minimum Essential Emergency Comm N	Item Number / Title [DODIC]: Minimum Essential Emergency Comm N
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	140.875	132.648	29.664	-	29.664
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	140.875	132.648	29.664	-	29.664
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	140.875	132.648	29.664	-	29.664

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Minimum Essential Emergency Comm N Cost																		
Recurring Cost																		
Global ASNT Terminals	-	-	-	2.723	48	130.697	2.929	42	123.029	-	-	-	-	-	-	-	-	-
Electronic Security System (ESS)	-	-	-	0.267	26	6.950	0.250	12	3.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	137.647	-	-	126.029	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Minimum Essential Emergency Comm N Cost</i>	-	-	-	-	-	137.647	-	-	126.029	-	-	-	-	-	-	-	-	-
Support - Minimum Essential Emergency Communication Network (MEECN) Cost																		
Direct Mission Suppt (DMS)	-	-	-	-	-	0.920	-	-	2.354	-	-	25.558	-	-	-	-	-	25.558
Program Support Cost (PSC)	-	-	-	-	-	2.308	-	-	4.265	-	-	4.106	-	-	-	-	-	4.106
<i>Subtotal: Support - Minimum Essential Emergency Communication Network (MEECN) Cost</i>	-	-	-	-	-	3.228	-	-	6.619	-	-	29.664	-	-	-	-	-	29.664
Gross/Weapon System Cost	-	-	-	-	-	140.875	-	-	132.648	-	-	29.664	-	-	-	-	-	29.664

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834240 / Wide Area Surveillance (WAS)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604445F **Other Related Program Elements:** 0604445F

Line Item MDAP/MAIS Code: 519

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	62.655	75.532	42.118	59.633	-	59.633	53.049	8.292	0.000	0.000	243.071	544.350
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	62.655	75.532	42.118	59.633	-	59.633	53.049	8.292	0.000	0.000	243.071	544.350
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	62.655	75.532	42.118	59.633	-	59.633	53.049	8.292	0.000	0.000	243.071	544.350

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

Initial Spares (<i>\$ in Millions</i>)	-	-	3.007	1.904	-	1.904	8.904	5.057	5.413	5.471	-	29.756
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Wide Area Surveillance (WAS) program provides homeland defense sensors to North American Aerospace Defense Command/US Northern Command (NORAD/USNORTHCOM) for air surveillance and cruise missile defense of the National Capital Region (NCR).

WAS consists of two advanced sensor systems, the Stateside Affordable Radar System (STARS) and Scorpion, incorporated into a single WAS System. Based upon existing technological capabilities, WAS detects/tracks low, slow and other asymmetrical threats in the airspace and meets the user needs of sensing stressing airborne targets in complex environments with affordable sensors. The sensor outputs are incorporated into the Battle Control Systems-Fixed (BCS-F) air picture and utilized as the NORAD/USNORTHCOM Command and Control (C2) air surveillance system of record.

The WAS strategy is an acquisition approach for full capability to produce and field highly capable and sustainable advanced sensors in the NCR. In FY21, the Air Force plans to award and exercise WAS Production and Interim Contractor Support (ICS) Contract options for both STARS and Scorpion systems as well as procure initial spares and repair parts.

Funding for this exhibit is contained in PE 0604445F, Wide Area Surveillance.

Some aspects of the WAS program are classified and information will be provided on a need-to-know basis.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834240 / Wide Area Surveillance (WAS)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604445F **Other Related Program Elements:** 0604445F

Line Item MDAP/MAIS Code: 519

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Wide Area Surveillance	P-5a, P-21	B		- / 62.655	- / 75.532	- / 42.118	- / 59.633	- / -	- / 59.633
P-40	Total Gross/Weapon System Cost				- / 62.655	- / 75.532	- / 42.118	- / 59.633	- / -	- / 59.633

*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:
 Will include but are not limited to:
 - FY21 funds will procure, produce and field operational STARS and Scorpion sensors, provide ICS for fielded sensors and procure and maintain system infrastructure such as a system integrated lab and system health and monitoring centralized data processing capability to support operations and support activities in accordance with NORAD/USNORTHCOM.
 - FY21 funds will include program management administration and direct mission support providing management, engineering, cost and technical support for the program office.
 - FY21 funds will support potential diminishing manufacturing sources, material shortages, obsolescence solutions, sparing, and recapitalization to include if optimal, life of type buys or bridge buys limited to the program of record quantity.
 - Some key components of each WAS site require significant lead time items.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4		P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS)
		Item Number / Title [DODIC]: Wide Area Surveillance

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	62.655	75.532	42.118	59.633	-	59.633
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	62.655	75.532	42.118	59.633	-	59.633
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	62.655	75.532	42.118	59.633	-	59.633

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

Initial Spares (\$ in Millions)	0.000	0.000	3.007	1.904	-	1.904
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Wide Area Surveillance ⁽¹⁾ Cost																		
Recurring Cost																		
Prime ^(t) (2)	-	-	-	2.446	11	26.910	1.854	15	27.813	16.590	3	49.769	-	-	-	16.590	3	49.769
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	26.910	-	-	27.813	-	-	49.769	-	-	-	-	-	49.769
Non Recurring Cost																		
Prime ICS	-	-	50.857	-	-	34.503	-	-	6.491	-	-	5.431	-	-	-	-	-	5.431
<i>Subtotal: Non Recurring Cost</i>	-	-	50.857	-	-	34.503	-	-	6.491	-	-	5.431	-	-	-	-	-	5.431
<i>Subtotal: Hardware - Wide Area Surveillance Cost</i>	-	-	50.857	-	-	61.413	-	-	34.304	-	-	55.200	-	-	-	-	-	55.200
Support - Wide Area Surveillance Cost																		
DMS Support	-	-	0.927	-	-	5.558	-	-	0.711	-	-	1.000	-	-	-	-	-	1.000
PMA Contractor Services	-	-	10.871	-	-	8.561	-	-	7.103	-	-	3.433	-	-	-	-	-	3.433
<i>Subtotal: Support - Wide Area Surveillance Cost</i>	-	-	11.798	-	-	14.119	-	-	7.814	-	-	4.433	-	-	-	-	-	4.433
Gross/Weapon System Cost	-	-	62.655	-	-	75.532	-	-	42.118	-	-	59.633	-	-	-	-	-	59.633

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

Footnotes:

(1) System quantities in FY19 and FY20 have increased within existing resources to meet fully operational capability in FY24.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS)	Item Number / Title [DODIC]: Wide Area Surveillance
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
<p>⁽²⁾ Hardware Recurring Prime: FY19/ FY20/ FY21 total WAS quantities/costs will be broken out between Stateside Affordable Radar Systems (STARS) and Scorpion systems, which have noticeably different average unit costs; .</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS)	Item Number / Title [DODIC]: Wide Area Surveillance
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Prime ^(†)		2019	Multiple/Various ⁽³⁾ / Various	TBD	AFLCMC Hanscom AFB	Mar 2020	Apr 2021 ⁽⁴⁾	11	2.446	N	Jun 2019	
Prime ^(†)		2020	Multiple/Various ⁽³⁾ / Various	TBD	AFLCMC Hanscom AFB	Aug 2021	Oct 2022 ⁽⁵⁾	15	1.854	N	Jun 2020	
Prime ^(†)		2021	Multiple/Various ⁽³⁾ / Various	TBD	AFLCMC Hanscom AFB	Jul 2021	Jul 2023 ⁽⁶⁾	3	16.590	N	Jun 2021	

^(†) indicates the presence of a P-21

Footnotes:

- ⁽³⁾ Hardware Recurring Prime: FY19/ FY20/ FY21 total WAS quantities/costs will be broken out between Stateside Affordable Radar Systems (STARS) and Scorpion systems, which have noticeably different average unit costs.
- ⁽⁴⁾ FY19 funding will award a production contract for Scorpion (first delivery date Oct 2021) and STARS (first delivery date Apr 2021) systems.
- ⁽⁵⁾ FY20 funding will award production contract options for Scorpion (first delivery date Oct 2022) systems.
- ⁽⁶⁾ FY21 funding will award production contract options for STARS (first delivery date Jul 2023) systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834240 / Wide Area Surveillance (WAS) **Item Number / Title [DODIC]:** Wide Area Surveillance

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCE PT TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Prime ⁽²⁾																															
1		2019	AF	11	1	10	1	1	1	-	1	1	1	-	1	1	1	1											0		
1		2020	AF	15	0	15	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	1	1	2	1	1	2	1	1	1	0
1		2021	AF	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834240 / Wide Area Surveillance (WAS) **Item Number / Title [DODIC]:** Wide Area Surveillance

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 3	BAL D U E A S O F 1 O C T	Calendar Year 2024												Calendar Year 2025												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Prime ⁽²⁾																															
1		2019	AF	11	11	0																							0		
1		2020	AF	15	15	0																							0		
1		2021	AF	3	1	2	-	1	-	-	-	1																	0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834240 / Wide Area Surveillance (WAS)	Item Number / Title [DODIC]: Wide Area Surveillance
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Multiple/Various ⁽³⁾ - Various	1	4	5	0	0	0	0	0	0	10	24	34

Remarks:
Prime cost elements include multiple contracts for the STARS and Scorpion systems. For each individual contract award, the WAS program delivery schedule does not exceed 12 months from delivery of the first unit.

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

Footnotes:
⁽³⁾ Hardware Recurring Prime: FY19/ FY20/ FY21 total WAS quantities/costs will be broken out between Stateside Affordable Radar Systems (STARS) and Scorpion systems, which have noticeably different average unit costs.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834320 / C3 Countermeasures
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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: 0207439F, 0208087F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	30.001	25.036	105.584	-	105.584	143.426	132.165	192.675	97.565	-	726.452
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	30.001	25.036	105.584	-	105.584	143.426	132.165	192.675	97.565	-	726.452
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	30.001	25.036	105.584	-	105.584	143.426	132.165	192.675	97.565	-	726.452

(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:

PE 0207439F Electronic Warfare Integrated Reprogramming (EWIR) - P-40A

DISTRIBUTED MISSION OPERATIONS AND THREAT CHANGE ANALYSIS: Conducted by the 453rd Electronic Warfare Squadron (453 EWS), EWIR provides analytical capabilities and reachback support for DoD acquisition, planning and mission execution activities. These capabilities ensure electronic warfare (EW) systems and integrated combat platforms correctly recognize and respond to enemy, friendly and noncombatant systems operating within the electromagnetic environment. The effort includes funds used to procure specialized information technology systems used to identify electromagnetic spectrum emitter changes that impact combat defensive and electronic warfare systems and to conduct detailed analyses in support of operational mission planning, tactics, techniques and procedures (TTP) development, acquisition and test & evaluation. These analyses provide the means to understand the performance of their systems in hostile environments, directly impacting the survivability of combat-coded USAF aircraft and aircrews. Funding for this exhibit contained in PE 0207439F. Beginning in Fiscal Year 2020, Other Procurement funding realigned to WSC 83410, General Information Technology, for clarity in reporting.

PE 0207573F National Technical Nuclear Forensics - P-40A

Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrial-based sensors and communications for prompt diagnostics, collection, analysis, and evaluation of a nuclear detonation. Funding also includes procurement of technical data and any required initial system support. Funding for this exhibit contained in PE0207573F. Funding was placed in BPAC 834010 starting in FY20.

PE 0207588F Air Base Ground Defense - P-40A

Ground based air defense capability designed to counter current and emerging threats to forward operation locations. Contact AF A3XY 703-614-0402 or A5RE 703-697-9393.

PE 0208064F OPERATIONAL HQ - CYBER - P-5

C3MS HARDWARE AND COMMERCIAL OFF-THE-SHELF SOFTWARE: FY21 funding completes hardware/software procurement to automate data exchange between Secure Internet Protocol Router Network (SIPRNet) and Joint Worldwide Intelligence Communications System (JWICS) and provide an environmental abnormality alerting capability, migrate SIPRNet weapon system applications to the cloud (cloud-based Alternate Operating Location (AOL)), complete any hardware/software procurements necessary to support cyber situational awareness/battle management development, and provides for Program Management Administration (PMA) support.

PE 0208087F Distributed Cyber Warfare Operations - P-5

Provides for the innovation, test, support and deployment of Cyberspace solutions in the form of material and non-material Cyberspace network attack tools and exploits for USAF Offensive Cyberspace

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834320 / C3 Countermeasures
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207439F, 0208087F
Line Item MDAP/MAIS Code: N/A		
<p>Operations (OCO) to include but not limited to USAF OCO units, the Cyber Mission Forces, COCOMs, and other authorized agencies. Funding procures specialized hardware/software necessary for real time deployment, exploit identification, tool development, and testing in an environment simulating real-world operational infrastructures and enclaves. Funding also is used for the upgrade and modification of the USAF operated cyber test and training range, operated by the 346th Test Squadron under the 688th Cyber Wing.</p> <p>PE 0208088F AF Defensive Cyberspace Operations - P-5 PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS (DCO)</p> <p>CYBERSPACE VULNERABILITY ASSESSMENT /HUNTER (CVA/H): Equipping the Cyber Protection Teams (CPT) and Mission Defense Teams (MDT) to Full Operational Capability of CVA/H equipment (Garrison Interceptor Platform (GIP), Deployable Interceptor Platform (DIP), Mobile Interceptor Platform (MIP), and Information Operations Platform. CVA/H provides 1067 Development with 3600 RDT&E funding; and in return the emerging 1067 3080 requirements are funded to procure and field new capabilities that have been solutioned /tested. Note: P-5 quantities are reported by # of CPTs fielded vice # of subsystems (MIP, DIP, GIP, IOP-FAK). Reporting is intended to better articulate the quantities of the CVA/H WS being procured.</p> <p>CYBERSPACE DEFENSE ANALYSIS(CDA): Cyberspace Defense Analysis (CDA): The CDA Weapon System (WS) conducts Defensive Cyberspace Operations (DCO) and network defense by monitoring, collecting, analyzing, and reporting sensitive information transiting or residing on the AFNet. Without proper funding the CDA PMO will not be able to procure vital hardware and software that supports the CDA Weapon System, as well as delivery of additional 1067 capabilities. These capabilities include Weapon System Technology Refreshes (4 Network Warfare Squadrons, 8 AF Gateways, 2 Area Processing Centers), additional two Radio Frequency Monitoring Suites (RFMS) (increase to 8 total suites), Enterprise Voice Over Internet Protocol (VoIP) Monitoring (184+ AF Sites), and other essential mission requirements. FY21 funding is essential in sustaining and maintaining the CDA Weapon System to combat the rapidly evolving cyber threats.</p> <p>AIR FORCE CYBERSPACE DEFENSE(ACD): Provides defensive counter cyberspace capability that protects the AFNet and DoD network enclaves, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction. 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> <p>Beginning in FY21 funding was realigned from WSC 831010 Comsec Equipment and 835080 AFNET for clarity in reporting.</p> <p>Funding for this exhibit contained in PE 0208088F.</p> <p>PE 0208099F Unified Platform (UP) - P-40A UNIFIED PLATFORM (UP) PE 0208099F - P-40A Procures capabilities to provide the Cyber Mission Forces (CMFs), U.S. Cyber Command (USCYBERCOM), and AF Major Commands a joint cyber operations infrastructure capable of mission planning, data analytics, and decision support for the execution of full-spectrum cyberspace operations through tactical levels of warfare. Funds procure hardware necessary for the effective deployment of operational capability to the CMFs. Funding for this exhibit contained in PE 0208099F. This is a joint program with the Air force as the lead service. Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting. Funding in this exhibit contained in PE 0208099F</p> <p>PE 0208288F Intel Data Applications - P-40A Includes several subprograms: CONSTANT WEB, SENSOR SHADOW, Technical Electronic Intelligence (ELINT) Analytics/Tool Development and Operational Reconnaissance (Ops Recce) Capability, Analytics/ Tool Development.</p> <p>*CONSTANT WEB is a database developed by the US Air Force's Intelligence Surveillance and Reconnaissance Agency (AFISRA) that contains information on both hostile and friendly C3 networks, units, and installations. It also provides limited criticality assessments of C3 elements.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834320 / C3 Countermeasures
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207439F, 0208087F
Line Item MDAP/MAIS Code: N/A		
<p>*SENSOR SHADOW is a Command and Control Warfare (C2W) and information tool designed to support strategic and operational planners. Funding provides upgrades of critical computers, processing systems, and infrastructure to support holistic Information Operations (IO) and nodal analysis in support of unique aspects of targeting that enables the shift from conventional to IW/C2W targeting.</p> <p>*Technical Electronic Intelligence (TechELINT) Analytics/Tool Development provides for the acquisition of new analytical software tools, storage and communications capability to allow the judicious processing, exploitation and dissemination of intercepted ELINT from US and allied systems.</p> <p>*Operational Reconnaissance (Ops Recce) Capability, Analytics/Tool Development provides for increased battlespace awareness through the use of sensors/platforms to achieve effects beyond what those sensors/platforms were originally designed.</p> <p>PE 0306250F Cyber Operations Technology Development - P-5 Cyber Operations Technology Development PE 0306250F - P-5 Provides Cyber National Mission Force (CNMF) Cyber Protection Teams (CPT) with a self-contained capability to conduct a full range of survey, secure, and protect missions that prepare local cyberspace defenders to sustain an advanced cyberspace defense posture and to defend the supported commander's critical assets. Hardware and software solutions support the USCYBERCOM mission to deter or defeat strategic threats to US interests and infrastructure, provide mission assurance for the operations and defense of the Department of Defense. Funding for this exhibit contained in PE 0306250F. Some aspects of the effort are classified and will be provided on a need to know basis. For further information please contact USCYBERCOM, 443-479-2602.</p> <p>PE 0804762F Cyberspace Training - P-40A Provides for Cyberspace solutions in the form of material and non-material Cyberspace training platforms, threat representative networks, mission relevant cyber terrain, and multi-domain architecture to support initial/mission qualification training and exercises for USAF and Joint cyber operations organizations including, but not limited to, USAF Offensive Cyber Operations unite, Defensive Cyber Operations units, Mission Defense Teams, the Cyber Mission Forces, Combatant Commands, and other authorized agencies. Funding procures hardware, software, and other training tools supporting individual and collective offensive and defensive cyber operator training, Service and Joint training exercises, and combat mission rehearsals. Solutions include rapidly evolving environments simulating real-world operational infrastructures and enclaves, operated by the USAF test, training, and range squadrons under Air Combat Command. Funding for this exhibit contained in PE 0404762.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834320 / C3 Countermeasures

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207439F, 0208087F
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	National Technical Nuclear Forensics				- / -	- / 6.070	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	OPERATIONAL HQ - CYBER		A		- / -	- / 0.000	- / 0.000	- / 4.794	- / -	- / 4.794
P-5	Distributed Cyber Warfare Operations		A		- / -	7 / 23.931	9 / 25.036	18 / 18.782	- / -	18 / 18.782
P-5	AF Defensive Cyberspace Operations		A		- / -	- / 0.000	- / 0.000	- / 60.480	- / -	- / 60.480
P-40a	Unified Platform (UP)				- / -	- / -	- / -	- / 4.956	- / -	- / 4.956
P-5	Cyber Operations Technology Development		A		- / -	- / 0.000	- / 0.000	- / 11.986	- / -	- / 11.986
P-40a	Cyberspace Training				- / -	- / -	- / -	- / 4.586	- / -	- / 4.586
P-40	Total Gross/Weapon System Cost				- / -	- / 30.001	- / 25.036	- / 105.584	- / -	- / 105.584

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
This program, PE 0306250F C3CM P-5, is a new start.

PE 0208064F OPERATIONAL HQ - CYBER - P-5
"PE 0208064F AIR FORCE Operational HQ-Cyber/Cyberspace Command and Control Mission System (C3MS)

1. C3MS HARDWARE AND COMMERCIAL OFF-THE-SHELF SOFTWARE: In FY21 funding will purchase commercial cloud capability, automated data exchange, cyber situational awareness displays, environmental abnormality alerting capability. Funding supports capital equipment replacements/updates to maintain security posture and field updates to two locations, and provides for Program Management Administration (PMA) support.

Funding for this exhibit contained in PE 0208064F.

PE 0208087F Distributed Cyber Warfare Operations - P-5
FY21 funding procures instances of Cyber Mission Platform systems, computer, computer related memory storage, local and long-haul communications, infrastructure, and unique intelligence and analysis equipment.
FY21 funding will procure computer, computer related memory storage, local and long-haul communications, infrastructure, and unique intelligence and analysis equipment. Details remain classified and will be provided on a need-to-know basis. For further information, please contact AF/A2.

PE 0208088F AF Defensive Cyberspace Operations - P-5
PE 0208088F AF DEFENSIVE CYBERSPACE OPERATIONS

1. CYBERSPACE VULNERABILITY ASSESSMENT /HUNTER (CVA/H): Equipping the Cyber Protection Teams (CPT) to Full Operational Capability of CVA/H equipment (Garrison Interceptor Platform (GIP), Deployable Interceptor Platform (DIP), Mobile Interceptor Platform (MIP), and Information Operations Platform in FY21 funding procures hardware refresh of MIP, DIP and GIP hardware to include the enhanced DIP which is capable of 10GB throughput and combines the DIP and IOP-FAK into one modular subsystem. Note: P-5 is reported by number of CPTs fielded vice number of subsystems (MIP, DIP, GIP, IOP-FAK). this is to better articulate the quantities of the CVA/H weapon system being procured.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834320 / C3 Countermeasures
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207439F, 0208087F
Line Item MDAP/MAIS Code: N/A		
<p>2. COMPUTER SECURITY ASSISTANCE PROGRAM (CSAP) COUNTERMEASURES: FY21 funding procures hardware/software necessary for vulnerability analysis, vulnerability identification, countermeasure development, and functional assessments in numerous simulated real-world operational environments. Vulnerability efforts include reverse engineering adversary malware and Internet of Things (IoT) devices, exploring n-day vulnerabilities in AF infrastructure. Beginning in FY21 the CSAP program will merge into the Air Force Cyberspace Defense Weapon System (ACD)baseline.</p> <p>3. CYBER DEFENSE ANALYSIS (CDA): FY21 funding procures necessary hardware and software related to projects that will help the CDA weapon system achieve Full Operational Capability (FOC), as well as additional projects. These projects include Alternate Operating Location (AOL), Analysis and Reporting database search capabilities, Voice Over Internet Protocol (VoIP) monitoring and collection at all AF installations, early systems development for Data Loss Prevention, along with other CDA sub-system components and pathfinder efforts.</p> <p>4. WEAPON SYSTEM CYBER RESPONSE (WSCR): The Cyber Squadron Initiative (CSI), the CVA/H weapon system Mobile Interceptor Platforms (MIP) and Deployable Interceptor Platforms (DIP) will be provided to the SAF/CIO directed Mission Defense Teams (MDT). The MDTs will use the MIPs and DIPs to provide cyber assurance of the Air Force core missions. FY21 provides technical refreshment of 15 existing MDTs and equips an additional MDTs. Note: P-5 quantities are reported by number of MDTs fielded vice number of subsystems (MIP and DIP). Change is to better articulate the quantities of the CVA/H WS being procured."</p> <p>5. AIR FORCE CYBERSPACE DEFENSE WEAPON SYSTEM (ACD): Procures and installs active defensive counter cyberspace operations and situational awareness capabilities in a Defensive Cyberspace Operations role to achieve cyberspace superiority for assigned missions. ACD procurements allow for 24/7/365 monitoring and defense of US Air Force and US Central Command, and Third Party SIPR/NIPR computer networks against hostile attacks as well as intrusion detection, network traffic analysis, network forensics analysis, countermeasure development and execution, and incident response. ACD provides indication and warning, correlation, logging, vulnerability remediation, assessment, process management, blocking, vulnerability identification, investigation and containment. In addition, ACD provides CSSP (Cyber Security Service Provider) system upgrades to the AFNet and several third party entities including Joint Strike Fighter, USTRANSCOM, and others. Efforts include, but are not limited to: Next Generation Firewall and Full Packet Capture and Data Analytics Enterprise. FY21 funds will procure updates via 1067 requests for ACD which include, but are not limited to, Enterprise Logging, Data Wall, Data Analytics, and hardware/software upgrades to move toward the JIE.</p> <p>PE 0208099F Unified Platform (UP) - P-40A UNIFIED PLATFORM (UP) PE 0208099F - P-40A Procures capabilities to provide the Cyber Mission Forces (CMFs), U.S. Cyber Command (USCYBERCOM), and AF Major Commands a Joint cyber operations infrastructure capable of mission planning, data analytics, and decision support for the execution of full-spectrum cyberspace operations at the operations through tactical levels of warfare. Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.</p> <p>PE 0306250F Cyber Operations Technology Development - P-5 Cyber Operations Technology Development PE 0306250F - P-5 FY21 funding will procure hardware and software required to equip Hunt Forward Kits in support of Cyber National Mission Force (CNMF) Cyber Protection Team (CPT) missions. Some aspects of the effort are classified and will be provided on a need to know basis. For further information please contact, 443-479-2602.</p> <p>PE 0804762F Cyberspace Training - P-40A Funding for PE is realigned from PE 0208087F beginning in FY21 to clarify spending on Cyber Training. Funding procures student mission training systems (hardware, software, infrastructure, and facility modifications) supporting Information and Cyber Operations training needs. FY21 funding provides additional hardware and software supporting training capacity increase to meet Cyber Mission Force (CMF) required pipeline of approximately 1770 students/year. Includes essential training infrastructure suite consisting of switches, servers, storage and software licenses for 6 virtual classrooms.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Aggregated Items Title: National Technical Nuclear Forensics
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
National Technical Nuclear Forensics																				
Nuclear Forensics - Prompt Diagnostics	A		-	-	-	-	-	6.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: National Technical Nuclear Forensics			-	-	-	-	-	6.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	6.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

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

Remarks:

Continues efforts previously funded by OSD for Prompt Diagnostics. Procures terrestrial-based sensors and communications for prompt diagnostics, collection, analysis, and evaluation of a nuclear detonation. Funding also includes procurement of technical data and any required initial system support. Funding was placed in BPAC 834010 starting in FY20.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: OPERATIONAL HQ - CYBER

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.000	0.000	4.794	-	4.794
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.000	0.000	4.794	-	4.794
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.000	0.000	4.794	-	4.794

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Operational HQ - Cyber Cost																		
Recurring Cost																		
HARDWARE AND COMMERCIAL OFF THE SHELF SOFTWARE	-	-	-	-	-	-	-	-	-	4.594	1	4.594	-	-	-	4.594	1	4.594
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.594	-	-	-	-	-	4.594
<i>Subtotal: Hardware - Operational HQ - Cyber Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.594	-	-	-	-	-	4.594
Support - Operational HQ - Cyber Cost																		
PROGRAM MANAGEMENT ADMINISTRATION (PMA) CONTRACTOR SERVICES	-	-	-	-	-	-	-	-	-	0.200	1	0.200	-	-	-	0.200	1	0.200
<i>Subtotal: Support - Operational HQ - Cyber Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.200	-	-	-	-	-	0.200
Gross/Weapon System Cost	-	-	-	-	-	0.000	-	-	0.000	-	-	4.794	-	-	-	-	-	4.794

Remarks:

Beginning in Fiscal Year 2021 Other Procurement Funding realigned from WSC 831010 Comm Security Equipment (COMSEC) to WSC 834320 C3 Countermeasures for clarity in reporting.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: Distributed Cyber Warfare Operations
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	7	9	18	-	18
Gross/Weapon System Cost (\$ in Millions)	-	23.931	25.036	18.782	-	18.782
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	23.931	25.036	18.782	-	18.782
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	23.931	25.036	18.782	-	18.782

(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)	-	3.419	2.782	1.043	-	1.043

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Distributed Cyber Warfare Operations Cost																		
Recurring Cost																		
Cyber Mission Platform (CMP) System	-	-	-	1.481	1	1.481	1.400	2	2.800	1.367	5	6.835	-	-	-	1.367	5	6.835
HYDRA (aka Ronin)	-	-	-	0.050	1	0.050	0.050	1	0.050	0.638	4	2.552	-	-	-	0.638	4	2.552
Telephony Network Operations (TNO)	-	-	-	-	-	-	0.370	1	0.370	1.000	1	1.000	-	-	-	1.000	1	1.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.531	-	-	3.220	-	-	10.387	-	-	-	-	-	10.387
Non Recurring Cost																		
Cyber Unique Equipment	-	-	-	-	-	9.378	-	-	10.760	-	-	0.000	-	-	-	-	-	0.000
Cyber Mission Platform (CMP) System	-	-	-	-	-	0.000	-	-	0.000	-	-	1.198	-	-	-	-	-	1.198
Telephony Network Operations (TNO)	-	-	-	-	-	1.990	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Testing and Training Equipment	-	-	-	-	-	3.773	-	-	1.713	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	15.141	-	-	12.473	-	-	1.198	-	-	-	-	-	1.198
<i>Subtotal: Hardware - Distributed Cyber Warfare Operations Cost</i>	-	-	-	-	-	16.672	-	-	15.693	-	-	11.585	-	-	-	-	-	11.585
Software - Distributed Cyber Warfare Operations Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: Distributed Cyber Warfare Operations
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Payloads	-	-	-	0.781	5	3.907	1.100	5	5.500	0.639	4	2.557	-	-	-	0.639	4	2.557
Telephony Network Operations (TNO)	-	-	-	-	-	-	-	-	-	0.400	1	0.400	-	-	-	0.400	1	0.400
HYDRA (aka Ronin)	-	-	-	-	-	-	-	-	-	0.510	2	1.020	-	-	-	0.510	2	1.020
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	3.907	-	-	5.500	-	-	3.977	-	-	-	-	-	3.977
<i>Subtotal: Software - Distributed Cyber Warfare Operations Cost</i>	-	-	-	-	-	3.907	-	-	5.500	-	-	3.977	-	-	-	-	-	3.977
Support - Distributed Cyber Warfare Operations Cost																		
PMA Contractor Services - CMP	-	-	-	-	-	1.831	-	-	0.719	-	-	1.470	-	-	-	-	-	1.470
PMA Contractor Services - HYDRA	-	-	-	-	-	0.000	-	-	0.450	-	-	0.000	-	-	-	-	-	0.000
PMA Contractor Services - TNO	-	-	-	-	-	0.821	-	-	0.550	-	-	0.000	-	-	-	-	-	0.000
PMA Contractor Services - Payloads	-	-	-	-	-	0.700	-	-	2.124	-	-	1.750	-	-	-	-	-	1.750
<i>Subtotal: Support - Distributed Cyber Warfare Operations Cost</i>	-	-	-	-	-	3.352	-	-	3.843	-	-	3.220	-	-	-	-	-	3.220
Gross/Weapon System Cost	-	-	-	3.419	7	23.931	2.782	9	25.036	1.043	18	18.782	-	-	-	1.043	18	18.782

Remarks:
HYDRA (aka Ronin) provides unique access/connectivity and required infrastructure across multiple spectrums in support of Offensive Cyber Operations.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: AF Defensive Cyberspace Operations

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.000	0.000	60.480	-	60.480
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.000	0.000	60.480	-	60.480
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.000	0.000	60.480	-	60.480

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - AF Defensive Cyberspace Operations Cost																		
Recurring Cost																		
1. Cyberspace Vulnerability Assessment/Hunter (CVA/H)	-	-	-	-	-	-	-	-	-	0.052	475	24.676	-	-	-	0.052	475	24.676
2. Computer Security Assistance Program (CSAP)	-	-	-	-	-	-	-	-	-	2.485	1	2.485	-	-	-	2.485	1	2.485
3. Cyberspace Defense Analysis (CDA)	-	-	-	-	-	-	-	-	-	1.699	1	1.699	-	-	-	1.699	1	1.699
4. Weapon System Cyber Response (WSCR)	-	-	-	-	-	-	-	-	-	0.052	150	7.760	-	-	-	0.052	150	7.760
5. Air Force Cyber Defense (ACD)	-	-	-	-	-	-	-	-	-	23.860	1	23.860	-	-	-	23.860	1	23.860
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	60.480	-	-	-	-	-	60.480
<i>Subtotal: Hardware - AF Defensive Cyberspace Operations Cost</i>	-	-	-	-	-	-	-	-	-	-	-	60.480	-	-	-	-	-	60.480
Gross/Weapon System Cost	-	-	-	-	-	0.000	-	-	0.000	-	-	60.480	-	-	-	-	-	60.480

Remarks:

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: AF Defensive Cyberspace Operations
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>Note: CVA/H, CSAP, CDA, and WSCR funding was realigned from 831010 Comsec Equipment and ACD has been realigned from 835080 AFNET beginning in FY21. Prior year details can be found in WSC 831010 and 835080. ACD previously tracked as modification to AFNET. In FY21 ACD tracked as cyber weapon system procurement to clarify cyber reporting. Beginning in FY21, CVA/H hardware procurement supporting CSAP program now tracked as part of CVA/H procurement to clarify reporting. DCO Cyber weapon systems are centrally managed.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Aggregated Items Title: Unified Platform (UP)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Unified Platform (UP)																				
Unified Platform (UP)	A		-	-	-	-	-	-	-	-	-	2.478	2	4.956	-	-	-	2.478	2	4.956
Subtotal: Unified Platform (UP)			-	-	-	-	-	-	-	-	-	-	-	4.956	-	-	-	-	-	4.956
Total			-	-	-	-	-	-	-	-	-	-	-	4.956	-	-	-	-	-	4.956

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

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834320 / C3 Countermeasures	Item Number / Title [DODIC]: Cyber Operations Technology Development

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.000	0.000	11.986	-	11.986
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.000	0.000	11.986	-	11.986
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	0.000	0.000	11.986	-	11.986

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hunt Forward Kit Cost																		
Recurring Cost																		
Kit	-	-	-	-	-	0.000	-	-	0.000	0.487	24	11.686	-	-	-	0.487	24	11.686
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	11.686	-	-	-	-	-	11.686
<i>Subtotal: Hardware - Hunt Forward Kit Cost</i>	-	-	-	-	-	0.000	-	-	0.000	-	-	11.686	-	-	-	-	-	11.686
Support - PMA Cost																		
PMA	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Support - PMA Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
Gross/Weapon System Cost	-	-	-	-	-	0.000	-	-	0.000	-	-	11.986	-	-	-	-	-	11.986

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4 **P-1 Line Item Number / Title:** 834320 / C3 Countermeasures **Aggregated Items Title:** Cyberspace Training

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Cyber Training																				
Cyber Multi-Domain Architecture	A		-	-	-	-	-	-	-	-	0.918	1	0.918	-	-	-	0.918	1	0.918	
Cyber Test and Training	A		-	-	-	-	-	-	-	-	1.834	1	1.834	-	-	-	1.834	1	1.834	
Cyber IQT-MQT	A		-	-	-	-	-	-	-	-	1.834	1	1.834	-	-	-	1.834	1	1.834	
Subtotal: Cyber Training			-	-	-	-	-	-	-	-	-	-	4.586	-	-	-	-	-	4.586	
Total			-	-	-	-	-	-	-	-	-	-	4.586	-	-	-	-	-	4.586	

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

Remarks:

Note: New PE beginning in FY21. Funding realigned from 0208087F Distributed Cyber Warfare Operations to clarify spending on Cyber Training systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834430 / GCSS-AF Fos

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0708012F, 0708610F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.483	11.226	0.000	-	0.000	11.195	3.918	3.633	3.700	-	34.155
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.483	11.226	0.000	-	0.000	11.195	3.918	3.633	3.700	-	34.155
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.483	11.226	0.000	-	0.000	11.195	3.918	3.633	3.700	-	34.155

(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:

PE 0708610F LOGISTICS INFORMATION TECHNOLOGY (LOGIT)

The Air Force logistics enterprise is comprised of multiple overarching functional areas, end-to-end supply chain support, base supply inventories, and predictive analysis and forecasting. Enterprise Logistics Systems deliver integrated logistics information driving war winning decisions by shaping, acquiring, and sustaining warfighting IT capabilities and mission support. OPAF funding will be used for capital equipment replacement to include servers and will also be used to purchase multi-year software licenses.

Systems contained in these business areas include, but are not limited to: Integrated Maintenance Data System (IMDS), Reliability and Maintainability Information System (REMIS), Reliability, Availability, Maintainability for Pods (RAMPOD), Integrated Logistics System-Supply (ILS-S), Stock Control System (SCS), Enhanced Technical Information Management System (ETIMS), Product Lifecycle Management (PLM), Supply Capability Initiative (SCI), and Item Master Logistics Capability Initiative (IMLCI).

Funding for this exhibit contained in PE 0708610F.

The FY 21 funding request was reduced by \$.391M to account for the availability of prior year execution balances.

Justification:

PE 0708610F LOGISTICS INFORMATION TECHNOLOGY (LOGIT)

The FY21 funding request was reduced by \$.391M to account for the availability of prior year execution balances.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834470 / Defense Enterprise Accounting & Mgt Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0901554F

Line Item MDAP/MAIS Code: N87

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14.040	0.962	1.905	0.899	-	0.899	3.104	3.158	3.215	3.274	0.000	30.557
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	14.040	0.962	1.905	0.899	-	0.899	3.104	3.158	3.215	3.274	0.000	30.557
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	14.040	0.962	1.905	0.899	-	0.899	3.104	3.158	3.215	3.274	0.000	30.557

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

Description:

Defense Enterprise Accounting and Management System (DEAMS) is a commercial-off-the-shelf (COTS), Oracle-based software implementation effort that will provide an auditable, modern accounting and finance system. DEAMS is a Joint United States Air Force (USAF) and United States Transportation Command (USTRANSCOM) Enterprise Resource Planning (ERP) Program that will provide core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting. DEAMS is compliant with the Clinger-Cohen Act, Business Enterprise Architecture (BEA), and integrates into Global Combat Support System-Air Force (GCSS-AF). When fully deployed, DEAMS will be key to Air Force compliance with the Financial Improvement and Audit Readiness (FIAR) requirement in the 2010 National Defense Authorization Act (NDAA).

DEAMS user deployments include:

- Air Mobility Command (AMC) without Transportation Working Capital Funds (TWCF)
- AMC with TWCF, in conjunction with Defense Finance and Accounting Service (DFAS) Rome
- Air Combat Command (ACC) and Air Force Global Strike Command (AFGSC)
- Air Force Reserve Command (AFRC), Air National Guard (ANG), and other Geographically Separated Units (GSUs) to include DFAS Limestone, Air Force District of Washington (AFDW), Air Force Special Operations Command (AFSOC), U.S. Air Force Academy (USAFA), Pacific Air Forces (PACAF), and DFAS Japan
- U.S. Air Forces in Europe (USAFE), DFAS Europe, Air Education and Training Command (AETC), and Joint Base San Antonio
- Air Force Material Command (AFMC), and Air Force Space Command (AFSPC)
- Remaining DFAS locations and all other GSUs

On 23 January 2017, the senior official provided the Critical Change Report (CCR) with certifications to Congress. The report recommended a restructure of DEAMS from one increment to multiple increments. The Milestone Decision Authority (MDA) approved the restructured program for DEAMS Increment (Inc) 1, to include deferring certain requirements to future increments, a limited deployment to an additional 700 users for Inc 1 to United States Air Forces in Europe (USAFE), and the updated Full Deployment Authority to Proceed (FD ATP) criteria via an Acquisition Decision Memorandum (ADM) dated 2 June 2017. FD ATP date is August 2020 and Capability Support Authority to Proceed (CS ATP) date is February 2021.

DEAMS was designated as an Agile Pilot program in the FY19 NDAA.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834470 / Defense Enterprise Accounting & Mgt Sys
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0901554F
Line Item MDAP/MAIS Code: N87		
<p>DEAMS will require software user licenses to support system deployments as well as potential software and hardware requirements needed to manage, execute, and deliver DEAMS system capability including necessary system upgrades.</p> <p>This requirement (or modification) supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.</p> <p>This program element may include necessary civilian pay expenses required to manage, execute, and deliver DEAMS system capability.</p> <p>Procurement funding prior to FY19 for DEAMS was in PE 0901538F, Financial Management Information Systems Development (FMISD). Funding for this exhibit contained in PE0901554F.</p> <p>As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.</p>		
Justification: Funds are used to procure software user licenses and other potential hardware and software using multiple contracts and various vendors. Software license counts are estimates and may vary at actual execution based on system needs. <p>Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834480 / Maintenance Repair & Overhaul Initiative

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0708055F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	12.207	1.912	0.000	-	0.000	0.000	0.000	0.000	0.000	-	14.119
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	12.207	1.912	0.000	-	0.000	0.000	0.000	0.000	0.000	-	14.119
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	12.207	1.912	0.000	-	0.000	0.000	0.000	0.000	0.000	-	14.119

(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:

MAINTENANCE REPAIR AND OVERHAUL INITIATIVE (MROI):

MROI creates an integrated capability that plans, schedules, and executes organic depot maintenance support functions critical to agile planning, optimized workload assignment, resource allocation and throughput, thereby increasing depot maintenance support to the warfighter. The items being procured are commercial software licenses to allow limited/full deployment. The software is known to work in commercial environments. MROI will test the Air Force configuration of the software in DISA environments with added Reports, Interfaces, Conversions and Extensions (RICE) objects.

Testing will be performed as part of the System Implementer activities. The contract was awarded 11 Jul 2018. MROI DT&E is projected for Mar 2020, IOT&E is projected for Apr 2020 and FOT&E is projected for Jan 2022.

Maintenance Repair and Overhaul Initiative will be using, for the first time in FY 2019, 3080 funding to support CY 2022 delivery of the MROI capability currently under development (RDT&E). Funds will be used to perform studies and innovative integration efforts for common technology capabilities such as cloud migration, technology development and mobile application.

Funding for this exhibit contained in PE 0708055F.

Justification:

In FY 2019 MROI was a new start.

The FY 2020 procurement dollars in the amount of \$1.912M procure various types/amounts of software in support of unit mission requirements for Air Force personnel. The budget reflects funding to procure production software licenses in quantities sufficient to support the MROI user community based on multiple release strategy.

No funding was requested for FY 2021.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
834520 / Theater Battle Mgt C2 System

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207438F, 0305015F, 0305984F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	5.191	6.337	3.392	-	3.392	5.106	0.396	0.421	0.429	-	21.272
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	5.191	6.337	3.392	-	3.392	5.106	0.396	0.421	0.429	-	21.272
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	5.191	6.337	3.392	-	3.392	5.106	0.396	0.421	0.429	-	21.272

(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:

PE 0207438F, Theater Battle Management (TBM) C41 - P-40A

1. Theater Battle Management Core System - Force Level (TBMCS FL): An integrated battle management system used to plan, execute, and assess an air campaign. It provides automated planning tools enabling consistent, coordinated battle management at both Air Operations Center (AOC) and non-AOC entities for operations and intelligence functions. TBMCS FL is a United States Air Force lead system with joint interest responsible for generation and dissemination of the Air Tasking Order (ATO) and inter-operates with allied units.

In FY 2021, TBMCS FL effort was transferred from PE 0305015F, C2 Air Operations Suite - C2 Information Services (C2AOS-C2IS), to PE 0207438, Theater Battle Management (TBM) C41, in order to improve program transparency.

PE 0305015F, C2 Air Operations Suite - C2 Info Services - P-40A

2. TBMCS FL: An integrated battle management system used to plan, execute, and assess an air campaign. It provides automated planning tools enabling consistent, coordinated battle management at both AOC and non-AOC entities for operations and intelligence functions. TBMCS FL is a United States Air Force lead system with joint interest responsible for generation and dissemination of the ATO and inter-operates with allied units.

In FY 2021, TBMCS FL effort was transferred to PE 0207438, TBM C41, from PE 0305015F, C2AOS-C2IS, in order to improve program transparency.

3. Command and Control, Incident Management and Emergency Response Application (C2IMERA; formerly Unit Command and Control [UC2]) provides the wing and base commanders, and their battle staffs, with timely and accurate information for effective decision making. C2IMERA also provides a secure, automated, deployable, and distributed wing-level command and control system with connectivity to TBMCS.

PE 0305984F, Personnel Recovery Command and Control (PRC2) - P40A

4. Provides PRC2 services supporting all Combatant Commands, Joint Services and other government agencies. Capabilities include web-based access to isolated personnel reports for all Department of Defense (DoD) personnel, C2 tools for performing command and control of recovery efforts for downed airmen/isolated ground troops, and rapid identification of personnel in distress. PRC2 is used within AOC/ Areas Of Responsibility (AOR), Joint Personnel Recovery Centers, and Rescue Coordination Centers to provide the capabilities and services for planning and executing recovery of isolated personnel, and rapidly collaborate, disseminate, and store time-sensitive personnel recovery information.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects		P-1 Line Item Number / Title: 834520 / Theater Battle Mgt C2 System
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207438F, 0305015F, 0305984F
Line Item MDAP/MAIS Code: N/A		
Funding for this exhibit contained in PE 0207438F, PE 0305015F and PE 0305984F.		
The FY 2021 funding request was reduced by \$2.234 million to account for the availability of prior year execution balances.		
<p>Justification: PE 0207438F, Theater Battle Management (TBM) C4I - P-40A; \$3.045 million 1. TBMCS FL: Provides the Combined/Joint Force Air Component Commander (C/JFACC) with the automated tools necessary to effectively and efficiently plan, monitor, and execute the air campaign. This includes planning and issuing the ATO and Airspace Control Order (ACO) that ensure the theater commander's intent is supported through the application of airpower using the latest intelligence. FY21 funding will field TBMCS FL Capital Equipment Replacement (CER) to the systems to maintain security posture and field to more than 40 locations.</p> <p>a. TBMCS FL PROGRAM MANAGEMENT ADMINISTRATION (PMA): FY21 funding includes provisions for government contract oversight, technical expertise, and program office support associated with the fielding of TBMCS FL.</p> <p>b. TBMCS FL FIELDING: FY21 funding will continue to support fielding of the TBMCS FL upgrades.</p> <p>c. TBMCS FL: FY21 funding will continue to be used to procure hardware and associated software licenses for fielding to various sites.</p> <p>PE 0305015F, C2 Air Operations Suite - C2 Info Services - P-40A; \$0.000 million 2. TBMCS FL: No FY21 funding requested.</p> <p>3. C2IMERA (formerly UC2): No FY21 funding requested.</p> <p>PE 0305984F, Personnel Recovery Command and Control (PRC2) - P40A; \$0.347 million 4. PRC2: Provides PRC2 services supporting all Combatant Commands, Joint Services and other government agencies. Capabilities include web-based access to isolated personnel reports for all DoD personnel, C2 tools for performing command and control of recovery efforts for downed airmen/isolated ground troops, and rapid identification of personnel in distress. PRC2 is used within AOC/AOR, Joint Personnel Recovery Centers, and Rescue Coordination Centers to provide the capabilities and services for planning and executing recovery of isolated personnel, and rapidly collaborate, disseminate, and store time-sensitive personnel recovery information.</p> <p>a. PRC2 HARDWARE AND COTS SOFTWARE: FY21 funding will continue to procure various hardware pieces and associated software licenses for fielding to the 517th Software Engineering Squadron (SWES) Development Network (DevNet).</p> <p>b. PRC2 PMA: FY21 funding will provide for government program oversight, technical expertise, and program office support associated with the PRC2 fielding.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 4: Spcl Comm-Electronics Projects

P-1 Line Item Number / Title:
 834530 / Air & Space Operations Center (AOC)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	38.589	33.243	24.983	-	24.983	13.593	18.185	17.313	32.315	-	178.221
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	38.589	33.243	24.983	-	24.983	13.593	18.185	17.313	32.315	-	178.221
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	38.589	33.243	24.983	-	24.983	13.593	18.185	17.313	32.315	-	178.221

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

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

Description:

The Air Operations Center Weapon System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System, is the weapon system that the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for monitoring, planning, executing and assessing theater-wide air and space operations in support of the air battle campaign to meet the Combined/Joint Force Commander's (C/JFC) objectives.

The AOC WS contains over 50 Command and Control (C2) systems/applications (3rd Party Commercial Off the Shelf (COTS)/Government Off the Shelf (GOTS)) that are continually being updated under monthly, quarterly and annual efforts (i.e. Agile Release Events (AREs), Critical Security Update (CSU), etc.). The AOC WS 10.1 integrates these changes as well as provides periodic Capital Equipment Replacement (CER) to keep the AOC WS interoperable, supportable, and compliant (e.g., certification and accreditation). Fielding will provide Joint C2 interoperability, and respond to the highest priority Combatant Command (CCMD) interoperability problems including: (a) incorporating fixes to shortfalls in interactions with CCMD targeting support systems, (b) enhancing the effectiveness of the operational picture to respond to the proliferation of sensors, and (c) handling data interface changes being experienced with older 3rd Party program deliveries. Major subsystems have enhanced their security profile and this fielding will serve as a re-accreditation of the overall AOC WS baseline. Primary efforts in fielding include CER and baseline updates via variously sized Baseline Releases (BR). BRs include regularly scheduled 3rd Party COTS/GOTS application updates. They are normally comprised of hardware/software changes/updates/modernized improvements/modifications and security patches. Each BR is based on warfighter-validated needs that require updates to the AOC WS 10.1. The AOC Block 20 Modification effort delivered a hybrid cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) to the AOC WS baseline. The hybrid cloud includes on premise hardware, software and commercial cloud computing services that host and provide air operations capabilities to the AOC enterprise.

The AOC WS funding provides system hardware, software, technical documents, CER (e.g., replacing end-of-life/end of support Direct Mission Support (DMS) and 3rd Party components), core radio and initial training to standardize and sustain the AOC WS. This includes the integration, test and fielding of cyber security improvements and existing 3rd Party modernized improvements/modifications (e.g., replace paper copy with electronic requests). The fielding and CER consist of AOCs and their associated support sites (e.g., Help Desk, Formal Training Unit (FTU), experimental sites, and Air Reserve Component sites).

There are three distinct categories of AOCs: Geographic, Global (formally known as Functional), and assorted AOC Support Functions (Help Desk, Field Training Unit (FTU), Operational Support Facility (OSF) and Air Reserve Component sites). While all sites start with the standardized 10.1 baseline, each is specifically tailored to the needs of the associated Geographic CCMD or Global (formally known as Functional) Command. Thus, as no two AOCs are alike, when a CER or BR is accomplished, each site is unique and requires its own specifically designed site-engineered fielding plan and associated hardware, which drives differences in site specific (i.e., unit) costs.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

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 PE 0207410F.

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	32.023	28.959	22.533	-	22.533	-	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.041	2.380	1.361	-	1.361	-	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.525	1.904	1.089	-	1.089	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	38.589	33.243	24.983	-	24.983	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects **P-1 Line Item Number / Title:** 834530 / Air & Space Operations Center (AOC)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Air & Space Operations Center (AOC)		A		- / -	- / 38.589	- / 33.243	- / 24.983	- / -	- / 24.983
P-40	Total Gross/Weapon System Cost				- / -	- / 38.589	- / 33.243	- / 24.983	- / -	- / 24.983

*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:**
1. FIELDING: Primary efforts include integration and fielding of improvements/upgrades of existing 3rd Party applications as well as newly developed replacement applications, CER (replacing end-of-life/end of support components) and baseline updates via variously sized BRs.
 - a. CAPITAL EQUIPMENT REPLACEMENT (CER): FY21 funds will be used to support moving the AOC baseline toward a cloud-based commercially managed Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform/environment and address numerous commercial end-of-life and DMS components including components associated with C2 applications (3rd Party COTS/GOTS) that must be resolved.
 - b. BASELINE RELEASES (BR): FY21 will fund BRs, periodic maintenance upgrades, emergency fixes, cyber security improvements and other activities (e.g., testing activities).
 - c. FIELDING SYSTEM PROGRAM OFFICE (SPO) SUPPORT: FY21 funds will be used to provide government oversight, technical expertise, and program office support associated with the fielding of AOC.
 - d. TEST SUPPORT (45th / 47th Test Squadron [45 TS/47 TS]): FY21 funds will be used to provide government oversight and technical expertise associated with the testing of AOC.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force						Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4				P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC)			Item Number / Title [DODIC]: Air & Space Operations Center (AOC)		
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:			
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)				-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				-	38.589	33.243	24.983	-	24.983
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				-	38.589	33.243	24.983	-	24.983
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				-	38.589	33.243	24.983	-	24.983
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)				-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
1.a.1. CAPITAL EQUIPMENT REPLACEMENT: GEOGRAPHIC/GLOBAL (formerly known as Functional) AOC - AD	-	-	-	-	-	5.447	-	-	4.761	-	-	2.722	-	-	-	-	-	2.722
1.a.2. CAPITAL EQUIPMENT REPLACEMENT: AOC SUPPORT SITES - AD	-	-	-	-	-	1.517	-	-	1.428	-	-	0.817	-	-	-	-	-	0.817
1.a.3. CAPITAL EQUIPMENT REPLACEMENT: AOC EXPERIMENTAL SITES - AD	-	-	-	-	-	2.136	-	-	8.173	-	-	8.199	-	-	-	-	-	8.199
1.a.4. CAPITAL EQUIPMENT REPLACEMENT - RESERVE	-	-	-	-	-	3.525	-	-	1.904	-	-	1.089	-	-	-	-	-	1.089
1.a.5. CAPITAL EQUIPMENT REPLACEMENT - GUARD	-	-	-	-	-	3.041	-	-	2.380	-	-	1.361	-	-	-	-	-	1.361

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4		P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
1.b.1. BASELINE RELEASE: AOC SITES - AD	-	-	-	-	-	1.592	-	-	0.900	-	-	0.350	-	-	-	-	-	0.350
1.b.2. BASELINE RELEASE: SUPPORT SITES - AD	-	-	-	-	-	0.927	-	-	1.000	-	-	0.350	-	-	-	-	-	0.350
1.c. FIELDING SPO SUPPORT	-	-	-	-	-	14.299	-	-	7.391	-	-	1.018	-	-	-	-	-	1.018
1.d. TEST SUPPORT (46 TS)	-	-	-	-	-	1.344	-	-	0.957	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	33.828	-	-	28.894	-	-	16.906	-	-	-	-	-	16.906
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	33.828	-	-	28.894	-	-	16.906	-	-	-	-	-	16.906
Support - Support End Item Cost																		
2.a. PROGRAM MANAGEMENT: PROGRAM SUPPORT	-	-	-	-	-	4.761	-	-	4.349	-	-	8.077	-	-	-	-	-	8.077
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	4.761	-	-	4.349	-	-	8.077	-	-	-	-	-	8.077
Gross/Weapon System Cost	-	-	-	-	-	38.589	-	-	33.243	-	-	24.983	-	-	-	-	-	24.983

Remarks:

- 1). Due to different levels of complexity, differences in equipment to be updated, and length of required time necessary for modification, the total cost will fluctuate between fiscal years.
- 2). Differences in site specific setup (due to variations between mission specific needs and differences in site type i.e., Geographic vs. Global (formally known as Functional) vs. Associated Support Site vs. Air Reserve Component Sites) will drive differences in site specific requirements (e.g., time required, hardware required and software required). This makes quantification impossible, as there is no single baseline to produce a quantity against. Per DoD Financial Regulation 7000.14-R, Volume 2B, Chapter 4, Exhibit P-5 Instruction, the quantities in the P-5 are left blank as there is no way to report applicable quantities.
- 3). Funding was established in the FY 2020 PB request to initiate a multi-year effort to consolidate the operations for 3 AOCs at one location and the Air Force is still working on the Concept of Operations and Plan of Action for this effort.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	32.023	28.959	22.533	-	22.533
AFNG	Quantity	-	-	-	-	-
	Total Obligation Authority	3.041	2.380	1.361	-	1.361
AFR	Quantity	-	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 4	P-1 Line Item Number / Title: 834530 / Air & Space Operations Center (AOC)	Item Number / Title [DODIC]: Air & Space Operations Center (AOC)
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution					
Total Obligation Authority	3.525	1.904	1.089	-	1.089
Total:					
Secondary Distribution					
Quantity	-	-	-	-	-
Total Obligation Authority	38.589	33.243	24.983	-	24.983

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 4: Spcl Comm-Electronics Projects	P-1 Line Item Number / Title: 834880 / Spectrum Relocation Fund
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	9.420	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	9.420
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	9.420	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	9.420
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	9.420	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	9.420

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

Description:

Funding supports Spectrum relocation and sharing activities as provided in 47 U.S.C. Sec 928 - Spectrum Relocation Fund.

Justification:

No budget year (FY21) funding requested.

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
 835060 / Base Information Transpt Infrast (BITI) Wired
 Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303004F, 0303112F

Line Item MDAP/MAIS Code: N78

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	-	19.147	109.163	51.942	111.901	113.951	153.793	654.258
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	-	19.147	109.163	51.942	111.901	113.951	153.793	654.258
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	-	19.147	109.163	51.942	111.901	113.951	153.793	654.258

(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:

BASE INFORMATION TRANSPORT INFRASTRUCTURE (BITI), formerly known as INFORMATION TRANSPORT SYSTEM (ITS): BITI delivers base-level Air Force cyberspace network and integrated information infrastructure for Air Force installations (active duty, reserve, and Air National Guard (ANG)) and Geographically Separated Units (GSU) at approved locations. BITI capabilities encompass base level information transport systems (wired and wireless), digital voice/data/video systems, commercial device connectivity, Unified Capabilities (UC) and the systems to manage, protect and maintain these capabilities. BITI provides a robust and secure wireless infrastructure that incorporates high-availability and multi-tiered network connections at approved facilities to support mobile Airmen. Finally, BITI will have a consolidated cyber capability addressing emerging cyber threats to infrastructure. The end result is a unified high-speed packet switching and circuit transport system providing acceptable mission-defined user experience connectivity at point of mission need. The efforts in this program budget line, through its various increments and major projects and coupled with efforts of other Air Force IT portfolios, ensure the fielding, support and sustainment of standard, enterprise information transport systems while enabling the evolution of improvements that include, but are not limited to, data center consolidation, cloud based services, and mobile computing. As UC evolves, to include but not limited to voice, BITI will respond with expanded bandwidth to provide the necessary throughput.

BITI will ensure that Air Force operating locations have sufficient infrastructure, bandwidth, and overall network capability to support the current and future communication needs of the Air Force and Joint-Command warfighter via reliable and survivable information transport with sufficient capacity and capability to meet the classified and unclassified data, voice, video, imagery, and telemetry requirements at each installed location.

BITI Recapitalization: Replaces "backbone" infrastructure of network equipment on a routine basis for fielded Air Force installations (active duty, reserve, and Air National Guard (ANG)) and at approved GSUs. More comprehensive recapitalizations may be required as part of technology insertion to ensure the fielding, support and sustainment of standard, mission capable Enterprise IT transport to fulfill warfighter information needs.

In accordance with Section 1815 of the FY2008 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 PE 0303112F until FY 21. From FY 21 and onward funding will be contained in PE 033004F.

The FY 21 funding request was reduced by \$13 million to account for the availability of prior year execution balances.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications					P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0303004F, 0303112F				
Line Item MDAP/MAIS Code: N78										

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.720	51.366	19.147	-	19.147	102.206	51.942	101.577	106.965
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.551	8.570	0.000	-	0.000	3.685	0.000	10.324	6.391
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	2.344	0.000	-	0.000	3.272	0.000	0.000	0.595
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	17.271	62.280	19.147	-	19.147	109.163	51.942	111.901	113.951

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications **P-1 Line Item Number / Title:** 835060 / Base Information Transpt Infrast (BITI) Wired

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303004F, 0303112F

Line Item MDAP/MAIS Code: N78

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / BITI Mod/Recaps (Capability Improvement)		A		- / 14.810	- / 17.271	- / 62.280	- / 19.147	- / 0.000	- / 19.147
P-3a	2 / BITI Mod/Recaps BITI Modification 2 (Capability Improvement)		A		- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 14.810	- / 17.271	- / 62.280	- / 19.147	- / -	- / 19.147

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / BITI Mod/Recaps (Capability Improvement)		A		- / 109.163	- / 0.000	- / 0.000	- / 0.000	- / -	- / 222.671
P-3a	2 / BITI Mod/Recaps BITI Modification 2 (Capability Improvement)		A		- / -	- / 51.942	- / 111.901	- / 113.951	- / 153.793	- / 431.587
P-40	Total Gross/Weapon System Cost				- / 109.163	- / 51.942	- / 111.901	- / 113.951	- / 153.793	- / 654.258

*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:
 BITI: FY21 funding includes, but is not limited to, implementation and upgrades to broadband, fiber-optic digital information transport networks to provide mission-critical information transfer capabilities at fixed Air Force bases (Active Duty, Air Force Reserve and Air National Guard) and selected geographically separated unit locations. Procurement efforts include, but are not limited, site surveys, installations, and interim contractor support (ICS).

 BITI Recapitalization: FY21 continues replacement of BITI on Air Force Turnkey fielded systems (5 year cycles).

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired	Modification Number / Title: 1 / BITI Mod/Recaps

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000	-	222.671
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000	-	222.671
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	14.810	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000	-	222.671

(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:

BITI Recapitalization: FY18 - FY22 replaces BITI Turnkey fielded systems (which started in FY15 and completed in FY18) for approved Air Force installations (5 year cycle).

NOTE: Direction in January 2016 was to begin reporting the modification effort for BITI on a P-3a exhibit starting for FY18 and beyond. Modification 1 covers the first 5 year recapitalization from FY18-FY22.

Milestone/Development Status

Sustainment

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.720	51.366	19.147	-	19.147	102.206	-	-	-
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.551	8.570	0.000	-	0.000	3.685	-	-	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	2.344	0.000	-	0.000	3.272	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5				P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired							Modification Number / Title: 1 / BITI Mod/Recaps		
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: BITI				Modification Type: Capability Improvement				Related RDT&E PEs: 0303004F, 0303112F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> BITI Recapitalization													
B Kits													
Recurring													
BITI Recapitalization:EQUIPMENT Group B (Active)	1 / 3.788	15 / 7.354	14 / 6.423	- / 0.000	- / -	- / 0.000	18 / 21.891	- / -	- / -	- / -	- / -	48 / 39.456	
BITI Recapitalization:EQUIPMENT Group B (Guard)	0 / 2.401	38 / 6.069	28 / 7.268	- / 0.000	- / -	- / 0.000	10 / 3.183	- / -	- / -	- / -	- / -	76 / 18.921	
BITI Recapitalization:EQUIPMENT Group B (Reserve)	0 / 0.000	0 / 0.000	4 / 2.044	- / 0.000	- / -	- / 0.000	6 / 2.723	- / -	- / -	- / -	- / -	10 / 4.767	
<i>Subtotal: Recurring</i>	- / 6.189	- / 13.423	- / 15.735	- / 0.000	- / -	- / 0.000	- / 27.797	- / -	- / -	- / -	- / -	- / 63.144	
<i>Subtotal: BITI Recapitalization</i>	- / 6.189	- / 13.423	- / 15.735	- / 0.000	- / -	- / 0.000	- / 27.797	- / -	- / -	- / -	- / -	- / 63.144	
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.189	- / 13.423	- / 15.735	- / 0.000	- / -	- / 0.000	- / 27.797	- / -	- / -	- / -	- / -	- / 63.144	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 0.356	- / 0.039	- / 27.416	- / 3.447	- / -	- / 3.447	- / 60.763	- / -	- / -	- / -	- / -	- / 92.021	
PMA - Other Gov't Costs	- / 0.332	- / 0.433	- / 0.832	- / 0.587	- / -	- / 0.587	- / 0.595	- / -	- / -	- / -	- / -	- / 12.779	
A&AS	- / 2.130	- / 0.000	- / 17.045	- / 18.789	- / -	- / 18.789	- / 10.658	- / -	- / -	- / -	- / -	- / 28.622	
PMA - Contractor Services	- / 15.353	- / 0.275	- / 18.921	- / 16.324	- / -	- / 16.324	- / 5.899	- / -	- / -	- / -	- / -	- / 26.772	
<i>Subtotal: Support</i>	- / 8.171	- / 0.747	- / 44.214	- / 19.147	- / -	- / 19.147	- / 77.915	- / -	- / -	- / -	- / -	- / 150.194	
Installation													
<i>Modification Item 1 of 1:</i> BITI Recapitalization	1 / 0.450	53 / 3.101	46 / 2.331	- / -	- / -	- / -	34 / 3.451	- / -	- / -	- / -	- / -	134 / 9.333	
<i>Subtotal: Installation</i>	1 / 0.450	53 / 3.101	46 / 2.331	- / -	- / -	- / -	34 / 3.451	- / -	- / -	- / -	- / -	134 / 9.333	
Total													
Total Cost (Procurement + Support + Installation)	14.810	17.271	62.280	19.147	0.000	19.147	109.163	0.000	0.000	0.000	-	222.671	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired	Modification Number / Title: 1 / BITI Mod/Recaps
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 1 of 1: BITI Recapitalization

Manufacturer Information

Manufacturer Name: TBD/Multiple	Manufacturer Location: TBD
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 0
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Jun 2019	May 2020		Dec 2021			
Delivery Dates	Jun 2019	May 2020		Dec 2021			

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.450
FY 2019	- / -	53 / 3.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 3.101
FY 2020	- / -	- / -	46 / 2.331	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 2.331
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	34 / 3.451	- / -	- / -	- / -	- / -	34 / 3.451
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.450	53 / 3.101	46 / 2.331	- / -	- / -	- / -	34 / 3.451	- / -	- / -	- / -	- / -	134 / 9.333

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	1	-	-	-	-	53	46	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	134
Out	0	-	-	-	-	-	1	-	-	-	17	18	33	15	16	17	17	-	-	-	-	-	-	-	-	-	-	-	-	0	134

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired	Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	51.942	111.901	113.951	153.793	431.587
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	51.942	111.901	113.951	153.793	431.587
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	51.942	111.901	113.951	153.793	431.587

(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:

BITI Recapitalization: FY23 - FY27 continues the five year recapitalization cycle that is addressed on Recaps BITI Modification 1. The five year cycle encapsulates 205 recapitalizations affecting 174 fixed Air Force Installations.

NOTE: Direction in January 2016 was to begin reporting the modification effort for BITI on a P-3a exhibit starting for the FY18 and beyond. Modification 2 covers the second five year recapitalization from FY23 - FY27.

Milestone/Development Status

Sustainment

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	51.942	101.577	106.965
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	0.000	10.324	6.391
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	0.000	0.000	0.595
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	51.942	111.901	113.951

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5					P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired					Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: BITI				Modification Type: Capability Improvement				Related RDT&E PEs: 0303004F, 0303112F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> BITI Recapitalization (2)													
B Kits													
Recurring													
BITI Recapitalization:EQUIPMENT Group B (Active)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 18.507	2 / 3.776	14 / 8.185	67 / 47.460	119 / 77.928
BITI Recapitalization:EQUIPMENT Group B (Guard)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 8.657	20 / 5.430	26 / 6.181	76 / 20.268
BITI Recapitalization:EQUIPMENT Group B (Reserve)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	0 / 0.000	0 / 0.595	10 / 4.130	10 / 4.725
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.507	- / 12.433	- / 14.210	- / 57.771	- / 102.921
<i>Subtotal: BITI Recapitalization (2)</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.507	- / 12.433	- / 14.210	- / 57.771	- / 102.921
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.507	- / 12.433	- / 14.210	- / 57.771	- / 102.921
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.262	- / 80.061	- / 79.693	- / 49.059	- / 221.075
PMA - Other Gov't Costs	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.607	- / 0.619	- / 0.632	- / 1.301	- / 3.159
A&AS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.870	- / 11.088	- / 11.310	- / 23.303	- / 56.571
PMA - Contractor Services	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.177	- / 5.760	- / 5.875	- / 12.106	- / 28.918
<i>Subtotal: Support</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.916	- / 97.528	- / 97.510	- / 85.769	- / 309.723
Installation													
<i>Modification Item 1 of 1:</i> BITI Recapitalization (2)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 4.519	32 / 1.940	34 / 2.231	103 / 10.253	205 / 18.943
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 4.519	32 / 1.940	34 / 2.231	103 / 10.253	205 / 18.943
Total													
Total Cost (Procurement + Support + Installation)	-	-	-	-	-	-	-	-	51.942	111.901	113.951	153.793	431.587

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020																				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5						P-1 Line Item Number / Title: 835060 / Base Information Transpt Infrast (BITI) Wired						Modification Number / Title: 2 / BITI Mod/Recaps BITI Modification 2																			
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:																				
Modification Item 1 of 1: BITI Recapitalization (2)																															
Manufacturer Information																															
Manufacturer Name: TBD/Multiple											Manufacturer Location: TBD																				
Administrative Leadtime (in Months): 1											Production Leadtime (in Months): 0																				
Dates		FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025					
Contract Dates														May 2023				May 2024				May 2025									
Delivery Dates														May 2023				May 2024				May 2025									
Installation Information																															
Method of Implementation: Contractor Facility																															
Installation Cost		Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total		FY 2022		FY 2023		FY 2024		FY 2025		To Complete		Total							
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)							
Prior Years		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		36 / 4.519		- / -		- / -		- / -		36 / 4.519							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 1.940		- / -		- / -		32 / 1.940							
FY 2025		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		34 / 2.231		- / -		34 / 2.231							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		103 / 10.253		103 / 10.253							
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		36 / 4.519		32 / 1.940		34 / 2.231		103 / 10.253		205 / 18.943							
Installation Schedule																															
		FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	36	-	-	-	-	32	-	-	-	34	103	205
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	9	9	9	9	-	8	8	8	8	137	205

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
P-1 Line Item Number / Title: 835080 / AFNET
 Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208088F, 0208099F, 0303089F, 0303112F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	72.596	131.063	84.515	-	84.515	78.925	84.031	81.761	50.418	-	583.309
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	72.596	131.063	84.515	-	84.515	78.925	84.031	81.761	50.418	-	583.309
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	72.596	131.063	84.515	-	84.515	78.925	84.031	81.761	50.418	-	583.309

(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:

These programs support Cyberspace Activities.

AFNet provides Commercial Off-The-Shelf (COTS) solutions to implement, deliver and upgrade installation processing nodes and boundaries, AF NIPRNet Gateways, Information Management Suite, enterprise network security, network situational awareness and C2 capabilities, and allows for the interface with and assured movement of information from terrestrial, air and space-based networks, thus enabling Air Force Information Operations (AFINOps). All funds used for AFNet Systems support the continued establishment and transformation of the AFINOps construct toward the standards and specifications of the DoD Joint Information Environment (JIE). The procurement efforts in this program budget line include, but are not limited to, system equipment, engineering/integration, certification and accreditation, deployment, testing, training equipment/systems, associated training and interim contractor support. Procurements implement technology and capabilities within the AFNet in accordance with the DoD IT Roadmap, AF Information Dominance Flight Plan, AF Cyber Blueprint and the AF Network Action Plan. All activities may incorporate support to other program elements across the Air Force Information Enterprise in accordance with SAF/CIO direction, the Data Center Optimization Initiative (DCOI), previously known as the Federal Data Center Consolidation Initiative (FDCCI), and the JIE strategy.

PE 0208088F, AIR FORCE CYBERSPACE DEFENSE Weapon System (ACD)

Provides defensive counter cyberspace capability that protects the AFNet and DoD network enclaves, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction. Beginning in FY21, Other Procurement Funding for ACD realigns from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0208099F, UNIFIED PLATFORM (UP)

Procures capabilities to provide the Cyber Mission Forces (CMFs), U.S. Cyber Command (USCYBERCOM), and AF Major Commands a joint cyber operations infrastructure capable of mission planning, data analytics, and decision support for the execution of full-spectrum cyberspace operations through tactical levels of warfare. Funds procure hardware necessary for the effective deployment of operational capability to the CMFs. Beginning in FY21, Other Procurement Funding for UP realigns from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0303089F, CYBERSPACE OPERATIONS SYSTEMS

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications		P-1 Line Item Number / Title: 835080 / AFNET
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0208088F, 0208099F, 0303089F, 0303112F
Line Item MDAP/MAIS Code: N/A		
<p>This PE executes requirements for both AFINC and CSCS weapon systems. Funds may be used for other AFNET requirements if required.</p> <p>(1) AIR FORCE INTRANET CONTROL (AFINC): Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways (GW), the Information Management Suite (IMS) and the base Service Delivery Point Routers as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS). Efforts include, but are not limited to: AFNet NIPR GW (MAC-1 system) and SIPR GW, which deliver critical network defense capabilities for the AF enterprise with over 800k users directly supporting flying, maintenance, space and cyber operations across the full range of military operations. GWs prevent and detect unauthorized network infiltration attempts and automatically initiate network defense countermeasures to eliminate the adversary's ability to gain access to the enterprise. With the migration of all Air Force installations to JRSS the Air Force will decommission the GWs. The IMS provides the Air Force with secure, real time, out of band network management for the weapon system infrastructure and unifies the management/defense of AF networks and assets. Funding includes recapitalization of the IMS as well as procures equipment upgrades that directly relate to the migration of AF traffic and technology transition from the AFNet NIPR Gateways to the JRSS.</p> <p>(2) CYBERSPACE SECURITY AND CONTROL SYSTEM (CSCS): Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force, the Air Force-provisioned portions of the DoD Information Network (DoDIN), and the Air Force Information Network (AFIN). CSCS modifications support the following activities: fault resolution to maintain operational capabilities; lead-in coordination activities at base-level Network Control Centers for necessary network security actions; monitoring of AF network services; managing of boundary protection devices and the Air Force network infrastructure; and continuous network situational awareness. Efforts include, but are not limited to: Data Center Consolidation and migration to the JIE; upgrade to the Core Services and the Air Force Vulnerability Management (AFVM) and Network Management.</p> <p>FY21 funds will procure modifications for CSCS and AFINC. CSCS includes, but is not limited to, Vulnerability Management, Area Processing Center and Regional Data Center Consolidations, Installation Service Nodes (ISNs), Installation Processing Nodes (IPNs), Active Directory Exchange (ADX), Host Based Security System (HBSS), Enclave NIPR Firewall and ASIM Sustainment (ENFASS)(previously under ACD) and base boundaries. AFINC includes, but is not limited to, Gateway e-mail security/DNS upgrades, Dual Path Resiliency, and SDP Router tech refresh.</p> <p>PE 0303228F, JOINT INFORMATION ENVIRONMENT (JIE)</p> <p>JIE is not a new start. This effort was previously funded under PE 0303089F and is now under PE 0303228F.</p> <p>JOINT INFORMATION ENVIRONMENT (JIE): This PE executes the requirements for JIE. Funds may be used for other AFNET requirements. DoD leadership has established and is tracking JIE implementation tasks that incrementally address diverse key categories that include but are not limited to: JRSS, Network Consolidation, Security, Enterprise Services, Application Rationalization, Enterprise Licensing, Mobility Service, Cloud Computing, and Installation types (e.g., Core Data Centers, Enterprise Operations Center, etc.). Much of the Increment 1 effort focuses on delivering and implementing reference and solution architectures and artifacts, developing TTPs needed to operate JIE capabilities (with global instantiation), defining and establishing an initial set of enterprise services, and establishing the governance processes critical to JIE management. Similar implementation tasks will be established for PACOM and CONUS during Increments 2 and 3 respectively. JIE funding may be used to maintain the current architecture of the AFNET while JIE implementation is ongoing.</p> <p>FY21 funds will be used to implement the federal and DoD CIO mandated Multiprotocol Label Switching (MPLS) Router Network Time Division Multiplexing (TDM) to Internet Protocol (IP) transition as well as tech refresh provider edge (PE) routers installed in 2016. The funding will also be used to fund AFNET network infrastructure, security, and enterprise services initiatives that will ensure AF compliance and supportability of DoD cloud initiatives.</p> <p>Funding for this exhibit is contained in PEs 0208088F, 0208099F, 0303089F, and 0303228F.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
835080 / AFNET
Equip / BSA 5: Air Force Communications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0208088F, 0208099F, 0303089F, 0303112F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	AF Defensive Cyberspace Operations				- / 0.000	- / 30.044	- / 16.883	- / 0.000	- / 0.000	- / 0.000
P-40a	Unified Platform (UP)				- / -	- / 0.000	- / 4.963	- / -	- / -	- / -
P-3a	1 / AFINC/CSCS WS 0303089 (Reliability & Maintainability)		A		- / -	- / 42.552	- / 109.217	- / 84.515	- / 0.000	- / 84.515
P-40a	Joint Regional Security Stacks (JRSS)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 72.596	- / 131.063	- / 84.515	- / -	- / 84.515

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	AF Defensive Cyberspace Operations				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 46.927
P-40a	Unified Platform (UP)				- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AFINC/CSCS WS 0303089 (Reliability & Maintainability)		A		- / 69.346	- / 74.284	- / 71.840	- / 43.286	- / -	- / 495.040
P-40a	Joint Regional Security Stacks (JRSS)				- / 9.579	- / 9.747	- / 9.921	- / 7.132	- / 0.000	- / 36.379
P-40	Total Gross/Weapon System Cost				- / 78.925	- / 84.031	- / 81.761	- / 50.418	- / -	- / 583.309

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

These programs support Cyberspace Activities.

FY21 AFNET (835080) funding provides for, but is not limited to, procurement & transformation of the installed and supported critical classified and unclassified information equipment capabilities for the Air Force Network (AFNet) Systems, modification efforts within two cyber weapon systems (AFINC & CSCS), and transformation/establishment of AFINOps to DoD JIE standards and specification. CSCS includes, but is not limited to, Vulnerability Management, Area Processing Center and Regional Data Center Consolidations, Installation Service Nodes (ISNs), Installation Processing Nodes (IPNs), Active Directory Exchange (ADX), Host Based Security System (HBSS), Enclave NIPR Firewall and ASIM Sustainment (ENFASS)(previously under ACD) and base boundaries. AFINC includes, but is not limited to, Gateway e-mail security/DNS upgrades, Dual Path Resiliency, and SDP Router tech refresh.

PE 0208088F, AF DEFENSIVE CYBERSPACE OPERATIONS (ACD)

Beginning in FY21, Other Procurement Funding for ACD realigns from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0208099F, UNIFIED PLATFORM (UP)

Beginning in FY21, Other Procurement Funding for UP realigns from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

PE 0303089F, CYBERSPACE OPERATIONS SYSTEMS

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications		P-1 Line Item Number / Title: 835080 / AFNET
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0208088F, 0208099F, 0303089F, 0303112F
Line Item MDAP/MAIS Code: N/A		
<p>(1) AFINC: Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS).</p> <p>(2) CSCS: Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force and the Air Force-provisioned portions of the DoD Information Network (DoDIN) and the Air Force Information Network (AFIN).</p> <p>PE 0303228F, JOINT INFORMATION ENVIRONMENT (JIE)</p> <p>JIE is not a new start. This effort was previously funded under PE 0303089F and is now under PE 0303228F. No Budget Year FY2020 funding was requested.</p> <p>(1) JIE: Procures end items to support AF JIE implementation tasks that incrementally address key categories which include but are not limited to: JRSS, Network Consolidation, Security, Enterprise Services, Application Rationalization, Enterprise Licensing, Mobility Service, Cloud Computing, and Installation Types. JIE funding may be used to maintain the current AFNET architecture while JIE implementation is ongoing.</p>		

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5							P-1 Line Item Number / Title: 835080 / AFNET							Aggregated Modification Items Title: AF Defensive Cyberspace Operations					

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Mod 1 0208088F / ACD WS 0208088F			-	-	-	-	-	30.044	-	-	16.883	-	-	-	-	-	-	-	-	
Total			-	-	0.000	-	-	30.044	-	-	16.883	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Mod 1 0208088F / ACD WS 0208088F			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.927	
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	46.927

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
Mod 1 0208088F / ACD WS 0208088F	ACD	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835080 / AFNET	Aggregated Items Title: Unified Platform (UP)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Unified Platform PE 28099F																				
Unified Platform (UP)	A		-	-	-	-	-	0.000	2.482	2	4.963	-	-	-	-	-	-	-	-	
Subtotal: Unified Platform PE 28099F			-	-	-	-	-	0.000	-	-	4.963	-	-	-	-	-	-	-	-	
Total			-	-	-	-	-	0.000	-	-	4.963	-	-	-	-	-	-	-	-	

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

Remarks:
Beginning in FY21, Other Procurement Funding for Unified Platform (UP) realigns from WSC 835080 AFNET to WSC 834320 C3 Countermeasures for clarity in reporting.

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835080 / AFNET	Modification Number / Title: 1 / AFINC/CSCS WS 0303089

ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	42.552	109.217	84.515	0.000	84.515	69.346	74.284	71.840	43.286	-	495.040
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	42.552	109.217	84.515	0.000	84.515	69.346	74.284	71.840	43.286	-	495.040
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	42.552	109.217	84.515	0.000	84.515	69.346	74.284	71.840	43.286	-	495.040
<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:

PE 0303089F, CYBERSPACE OPERATIONS SYSTEMS

This PE executes requirements for both AFINC and CSCS weapon systems. Funds may be used for other AFNet requirements if required.

(1) AIR FORCE INTRANET CONTROL (AFINC): Procures and installs equipment for network operations, network defense and overall management of the AF NIPRNet Gateways (GW), the Information Management Suite (IMS) and the base Service Delivery Point Routers as well as the Air Force discrete requirements associated with the Joint Regional Security Stacks (JRSS). Efforts include, but are not limited to: AFNet NIPR GW (MAC-1 system) and SIPR GW, which deliver critical network defense capabilities for the AF enterprise with over 800k users directly supporting flying, maintenance, space and cyber operations across the full range of military operations. GWs prevent and detect unauthorized network infiltration attempts and automatically initiate network defense countermeasures to eliminate the adversary's ability to gain access to the enterprise. With the migration of all Air Force installations to JRSS the Air Force will decommission the GWs. The IMS provides the Air Force with secure, real time, out of band network management for the weapon system infrastructure and unifies the management/defense of AF networks and assets. Funding includes recapitalization of the IMS as well as procures equipment upgrades that directly relate to the migration of AF traffic and technology transition from the AFNet NIPR Gateways to the JRSS.

(2) CYBERSPACE SECURITY AND CONTROL SYSTEM (CSCS): Procures and installs capabilities contributing to cyber mission assurance, including proactive defense and persistent network operations for the Air Force, the Air Force-provisioned portions of the DoD Information Network (DoDIN), and the Air Force Information Network (AFIN). CSCS modifications support the following activities: fault resolution to maintain operational capabilities; lead-in coordination activities at base-level Network Control Centers for necessary network security actions; monitoring of AF network services; managing of boundary protection devices and the Air Force network infrastructure; and continuous network situational awareness. Efforts include, but are not limited to: Data Center Consolidation and migration to the JIE; upgrade to the Core Services and the Air Force Vulnerability Management (AFVM) and Network Management.

FY21 funds will procure modifications for CSCS and AFINC. CSCS includes, but is not limited to, Vulnerability Management, Area Processing Center and Regional Data Center Consolidations, Installation Service Nodes (ISNs), Installation Processing Nodes (IPNs), Active Directory Exchange (ADX), Host Based Security System (HBSS), Enclave NIPR Firewall and ASIM Sustainment (ENFASS)(previously under ACD) and base boundaries. AFINC includes, but is not limited to, Gateway e-mail security/DNS upgrades, Dual Path Resiliency, and SDP Router tech refresh.

Milestone/Development Status

Sustainment

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5					P-1 Line Item Number / Title: 835080 / AFNET					Modification Number / Title: 1 / AFINC/CSCS WS 0303089			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: AFINC-CSCS-WS				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0303112F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> AFINC/CSCS WS MODs													
B Kits													
Recurring													
AFINC/CSCS WS MODs:EQUIPMENT Group B (Active)	- / -	1 / 31.850	1 / 92.315	1 / 72.779	- / -	1 / 72.779	1 / 56.482	1 / 60.667	1 / 57.718	1 / 31.148	- / -	7 / 402.959	
<i>Subtotal: Recurring</i>	- / -	- / 31.850	- / 92.315	- / 72.779	- / -	- / 72.779	- / 56.482	- / 60.667	- / 57.718	- / 31.148	- / -	- / 402.959	
<i>Subtotal: AFINC/CSCS WS MODs</i>	- / -	- / 31.850	- / 92.315	- / 72.779	- / -	- / 72.779	- / 56.482	- / 60.667	- / 57.718	- / 31.148	- / -	- / 402.959	
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / 31.850	- / 92.315	- / 72.779	- / -	- / 72.779	- / 56.482	- / 60.667	- / 57.718	- / 31.148	- / -	- / 402.959	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 0.000	
PMA - Contractor Services	- / -	- / 9.308	- / 16.206	- / 11.157	- / -	- / 11.157	- / 12.274	- / 13.015	- / 13.518	- / 11.523	- / -	- / 87.001	
PMA - Other Gov't Costs	- / -	- / 1.394	- / 0.696	- / 0.579	- / -	- / 0.579	- / 0.590	- / 0.602	- / 0.604	- / 0.615	- / -	- / 5.080	
<i>Subtotal: Support</i>	- / -	- / 10.702	- / 16.902	- / 11.736	- / 0.000	- / 11.736	- / 12.864	- / 13.617	- / 14.122	- / 12.138	- / -	- / 92.081	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	-	42.552	109.217	84.515	0.000	84.515	69.346	74.284	71.840	43.286	-	495.040	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5			P-1 Line Item Number / Title: 835080 / AFNET			Modification Number / Title: 1 / AFINC/CSCS WS 0303089	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 1: AFINC/CSCS WS MODs							
Manufacturer Information							
Manufacturer Name: Multiple				Manufacturer Location: Various			
Administrative Leadtime (in Months): 7				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	May 2019	May 2020	May 2021	May 2022	May 2023	May 2024	May 2025
Delivery Dates	May 2020	May 2021	May 2022	May 2023	May 2024	May 2025	May 2026
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 7		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5	P-1 Line Item Number / Title: 835080 / AFNET	Aggregated Modification Items Title: Joint Regional Security Stacks (JRSS)
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Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
JIE-1 / JIE-Mod			-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
JIE-1 / JIE-Mod			-	-	9.579	-	-	9.747	-	-	9.921	-	-	7.132	-	-	-	-	-	36.379
Total			-	-	9.579	-	-	9.747	-	-	9.921	-	-	7.132	-	-	0.000	-	-	36.379

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
JIE-1 / JIE-Mod	JIE	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
 835110 / Joint Communications Support Element (JCSE)
 Equip / BSA 5: Air Force Communications

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	3.145	6.505	6.185	-	6.185	5.467	5.562	5.661	5.765	-	38.290
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	3.145	6.505	6.185	-	6.185	5.467	5.562	5.661	5.765	-	38.290
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	3.145	6.505	6.185	-	6.185	5.467	5.562	5.661	5.765	-	38.290

(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:

JOINT COMMUNICATIONS SUPPORT ELEMENT (JCSE): JCSE, assigned under Joint Enabling Capabilities Command, US Transportation Command, is the only joint Department of Defense (DoD) unit specifically formed to provide command, control, communications, and computers (C4) systems support for Joint Chiefs of Staff (JCS) contingency operations worldwide. The Joint Communications Support Element (JCSE) mission is to provide, on short notice, those critical communications required to support Joint Task Force support (JTF) and Joint Special Operations Task Force (JSOTF) headquarters. These assets support the warfighter's ability to deploy rapidly and immediately provide the positive command and control required. This support includes contingency and crisis communications for the Joint Chiefs of Staff, Combatant Commands, Services, Defense agencies, non-Defense agencies, and foreign governments. Program goals include meeting emerging real-world operational requirements with the maximum capabilities, smallest footprint, lowest operations and maintenance costs, and seamless integration with the global information grid. Per Defense Planning Guidance (DPG) and Director, Joint Staff Memorandum (DJSJSM)0291-14, the Air Force is mandated to fund 1/3rd fair share of JCSE's validated Modernization Program.

Funding for this exhibit is contained in PE 0207422F, Deployable Command, Control, and Communications (C3) Systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 835110 / Joint Communications Support Element (JCSE)
Equip / BSA 5: Air Force Communications

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Joint Communications Support Element (JCSE)				- / -	- / 3.145	- / 6.505	- / 6.185	- / -	- / 6.185
P-40	Total Gross/Weapon System Cost				- / -	- / 3.145	- / 6.505	- / 6.185	- / -	- / 6.185

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 JCSE: FY21 base funding procures communications equipment based on Strategic Planning Guidance. This includes the maximum capabilities for narrowband, wideband and protected satellite communications (SATCOM) terminals and systems, tactical radios, terrestrial communications systems, satellite hubs, networking elements, virtual appliances, Video Teleconferencing (VTC) capabilities, alternative power solutions, Airborne /En-Route, Forced Entry, Cyber Security, and Mobile Joint C2 equipment. Advancements in technology have provided opportunities to modernize current equipment sets with enhanced capabilities to meet the program goals which include meeting emerging real-world operational and cyber defense requirements with maximum capabilities, the smallest possible footprint, lowest operations and maintenance costs, and seamless integration with the global information grid. This equipment is a critical part of Command, Control and Communications packages that provide direct operational support to joint forces and HQ elements deployed to austere locations around the globe. Per the Planning Guidance, the Air Force is mandated to fund one-third of the fair share of JCSE's validated equipment modernization plan. JCSE's Program is built/restructured based on Combatant Command (CCMD) and Service Components' requirements and emerging technologies. The Services influence JCSE's spending plan through recommendations in concert with Major Defense Acquisition Program (MDAP) schedules, ensuring that Service dollars meet Joint Service requirements.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5							P-1 Line Item Number / Title: 835110 / Joint Communications Support Element (JCSE)							Aggregated Items Title: Joint Communications Support Element (JCSE)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
JCSE Deployable C3 Systems	A		-	-	-	3.145	1	3.145	6.505	1	6.505	-	-	6.185	-	-	-	-	-	6.185
Subtotal: Uncategorized			-	-	-	-	-	3.145	-	-	6.505	-	-	6.185	-	-	-	-	-	6.185
Total			-	-	-	-	-	3.145	-	-	6.505	-	-	6.185	-	-	-	-	-	6.185

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
P-1 Line Item Number / Title: 835140 / USCENTCOM
 Equip / BSA 5: Air Force Communications

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	8.194	20.190	19.649	-	19.649	18.303	18.624	18.959	19.305	-	123.224
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	8.194	20.190	19.649	-	19.649	18.303	18.624	18.959	19.305	-	123.224
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	8.194	20.190	19.649	-	19.649	18.303	18.624	18.959	19.305	-	123.224

(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:

PE 0201122F USCENTCOM COMMUNICATIONS

HQ USCENTCOM's mission is to work with its national and international partners in promoting development and cooperation among nations, responding to crises, and deterring or defeating state and transnational aggression in order to establish regional security and stability across its entire Area of Responsibility (AOR). Since USCENTCOM's AOR, covering the Middle East, includes the challenges of regional stability and violent extremists, this Combatant Command's mission is critical in regards to the Overseas Contingency Operations (OCO). To meet its mission responsibilities across this geographical expanse, HQ USCENTCOM must rely heavily on Command, Control, Communications, and Computer (C4) systems capable of achieving full spectrum information superiority.

Funding for this effort is contained in PE 0201122F USCENTCOM Communications.

USCENTCOM COMMAND AND CONTROL SYSTEMS: Effort will provide end of life replacement for, but not limited to, Command and Control (C2) systems (thin client, server, etc), Joint Information Environment (JIE), classified and unclassified voice, data and video dissemination, storage area network (SAN) infrastructure, establishment of mission partner networks such as but not limited to; CENTCOM Partner Network (CPN), CENTCOM Partner Network Extended (CPN-X), Mission Partner Environment Information System (MPE-IS), and other coalition partner networks which provide secure networks for bilateral / multilateral information sharing up to the SECRET RELEASABLE level. Support maximum data storage capacity requirements for HQ war records collection, Modeling & Simulation Systems (J8MS), and uninterrupted power supply (UPS) required for the command's collateral classified and unclassified data networks. This equipment provides HQ USCENTCOM with effective C4 systems to effectively conduct current and future operations throughout the AOR.

PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS

Air Forces United States Central Command (AFCENT) is the ACC component designated to support USCENTCOM operations in deployed theaters for the AF. Funds C4 systems throughout the area of responsibility (AOR). Procurement efforts include: communications infrastructure requirements, satellite terminal equipment, data network servers and associated information assurance tools, information transfer nodes and routers, joint radio relays, as well as deployed air traffic control and landing systems and navigational aid systems. AFCENT funds/support our portion of CENTCOM directed mission partner initiatives such as CPN X to ensure interoperability.

Funding for this effort is contained in PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 835140 / USCENTCOM
Equip / BSA 5: Air Force Communications

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	USCENTCOM Communications				- / -	- / 2.084	- / 4.720	- / 4.592	- / -	- / 4.592
P-40a	Service Support to USCENTCOM - Communications				- / -	- / 6.110	- / 15.470	- / 15.057	- / -	- / 15.057
P-40	Total Gross/Weapon System Cost				- / -	- / 8.194	- / 20.190	- / 19.649	- / -	- / 19.649

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0201122F USCENTCOM COMMUNICATIONS

USCENTCOM COMMAND AND CONTROL SYSTEMS: FY21 funding will procure C4 equipment items required for HQ USCENTCOM, MacDill AFB, FL, Disaster Recovery Site (Site X), and CENTCOM Forward HQ at Al Udeid, Qatar, to effectively conduct communications support missions impacting Command and Control (C2) and operational missions conducted by the Commander and staff. The C4/Information Technology (IT) supporting the command must be replaced to meet the ever increasing demands of current, ongoing contingency operations, and the growth of data storage requirements.

STORAGE CAPABILITIES: HQ CENTCOM and CENTCOM Forward HQ require maximum storage capabilities to maintain a level of readiness, reduce server footprint, and continue capabilities as they are implemented.

PE 0201131F AIR COMBAT COMMAND (ACC) COMMUNICATIONS FY21 funds will provide:

BASE COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C4I) INFRASTRUCTURE. This FY21 effort will support communications CENTCOM Theater Posture Plan (TPP) locations identified for post OEF support. This effort is required at several AFCENT locations in the AOR and will provide critical infrastructure to support the transition to the Joint Information Environment, as required by DoD CIO mandate. Mode 5 mandate requires AFCENT obtain transition devices for theater radars to ensure proper C2. Developing infrastructure must be funded to support counter Unmanned Aircraft System technologies and new technologies for air domain awareness. Replacement for aged Air Traffic Control And Landing Systems equipment is required.

Southwest Asia - THEATER ENTERPRISE REQUIREMENTS - AFCENT must procure new system to support contingency operations and base opening/closure requirements, which average 2 base openings and closing per year regardless of new or ongoing contingencies. A new Jordanian Base (MSAB) has been added to the enduring base list and commercialization projects are underway to complete transition from tactical support to enduring infrastructure.

JOINT INFORMATION ENVIRONMENT: Implementation of JIE at MacDill AFB with SAF/AA establishing a global node at HQ USCENTCOM. HQ USCENTCOM will collaborate with the DoD stakeholder community to implement the Joint Information Environment to include cloud infrastructure and digital transformation capabilities.

FY21 effort will continue to support infrastructure and services essential secure networks for bilateral and multilateral information up to the secret releasable level. Support the networks and cross domain solution necessary to securely and safely integrate coalition sensors and C2 capabilities with C2 efforts. Includes integration of Coalition operations into our Combined Air Operations Center at Al Uedied AB

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5 **P-1 Line Item Number / Title:** 835140 / USCENTCOM **Aggregated Items Title:** USCENTCOM Communications

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
USCENTCOM COMMAND AND CONTROL SYSTEM	A		-	-	-	2.084	1	2.084	4.720	1	4.720	4.592	1	4.592	-	-	-	4.592	1	4.592
Subtotal: Uncategorized			-	-	-	-	-	2.084	-	-	4.720	-	-	4.592	-	-	-	-	-	4.592
Total			-	-	-	-	-	2.084	-	-	4.720	-	-	4.592	-	-	-	-	-	4.592

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

Remarks:
 USCENTCOM: FY21 procurement funds in the amount of \$4.598M will procure C4 equipment items required for HQ USCENTCOM, MacDill AFB, FL and CENTCOM Forward HQ at Al Udeid, Qatar. Funding is vital to effectively conduct communications support missions impacting Command and Control (C2) and operational missions conducted by the Commander and staff supporting the Command's CONPLAN/OPLANS. The C4/Information Technology (IT) supporting the command must be replaced to meet the ever increasing demands of enduring operations and the growth of data storage requirements, as well as emergent cyber threats.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 5							P-1 Line Item Number / Title: 835140 / USCENTCOM							Aggregated Items Title: Service Support to USCENTCOM - Communications					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
Deployable Tactical Air Navigation (DTACAN)	A		-	-	-	2.400	2	4.800	4.853	1	4.853	4.850	1	4.850	-	-	-	4.850	1	4.850
BASE C4I SUPPORT	A		-	-	-	0.500	2	1.000	0.406	4	1.624	0.406	4	1.624	-	-	-	0.406	4	1.624
SWA-THEATER ENTERPRISE REQUIREMENTS	A		-	-	-	0.310	1	0.310	8.993	1	8.993	8.583	1	8.583	-	-	-	8.583	1	8.583
JOINT INFORMATION ENVIRONMENT CAPABILITIES	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AFCENT PMA Other Government Costs	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AFCENT PMA Contract Service	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	6.110	-	-	15.470	-	-	15.057	-	-	-	-	-	15.057
Total			-	-	-	-	-	6.110	-	-	15.470	-	-	15.057	-	-	-	-	-	15.057

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

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:**
 835160 / USSTRATCOM
 Equip / BSA 5: Air Force Communications

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	11.244	4.337	-	4.337	4.450	4.527	4.610	4.695	-	33.863
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	11.244	4.337	-	4.337	4.450	4.527	4.610	4.695	-	33.863
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	11.244	4.337	-	4.337	4.450	4.527	4.610	4.695	-	33.863

(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 USSTRATCOM COMMAND AND CONTROL FACILITY (C2F) IT Enterprise will incorporate all facets of the previously reported within PE 0303255F, USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT (old C2 Modernization), ANALYSIS AND TARGETING, and FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT SYSTEM (FSAM). The USSTRATCOM REPLACEMENT FACILITY FIT-OUT program does not have funding in FY20. All programs and systems will now ride on enterprise infrastructure, and be reported under BPAC 835160 PE 11301F, except the GDC2 program. It will continue to be reported under PE 0303255F, but is a separate program included in BPAC 835160.

This is not a new start.

a. USSTRATCOM C2 SYSTEMS LIFECYCLE HARDWARE MANAGEMENT: This effort provides the C2 infrastructure and hardware to acquire, process, and deliver information, as needed, to enhance decision making for USSTRATCOM. This effort employs a set of underlying information services, technologies, and tools that enable the Commander of USSTRATCOM to achieve broad operational warfighting capabilities. The C2F IT Enterprise adds capability as it builds to a final architecture. The cyber architecture is a collection of distributed databases and applications, integrated through a grid of supporting services. This effort was previously referred to as "C2 Modernization and reported under BPAC 833140, PE 0303255F and is NOT a new start.

Beginning in FY20 this program will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160, PE 0101301F

b. ANALYSIS AND TARGETING - JOINT WARFARE ANALYSIS CENTER (JWAC): effort provides the hardware that enables the JWAC to develop and recommend strategic technical solutions. JWAC coordinates directly with the staffs of all Unified Commands, Department of Defense (DoD) elements, Combatant Commands, military services, and other government departments and agencies to respond to crises.

Beginning in FY20 this program will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160, PE 0101301F

c. FORCE SURVIVABILITY, ANALYSIS, AND MANAGEMENT: Provides a decision support system and is designed to provide the commander with Force Management (pre attack) and Force Survival (post attack) information needed to ensure survival of strategic forces. Provides the commander vital decision making data by correlating strategic force status reported by Force Status Reporting (FSR) with missile attack warning information. Processing and Display Subsystem - Migration (PDS-M) will continue to provide the commander with missile attack warning information

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 5: Air Force Communications		P-1 Line Item Number / Title: 835160 / USSTRATCOM
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Beginning in FY20 this program will be captured under the USSTRATCOM IT Enterprise construct, BPAC 835160, PE 0101301F		
d. GLOBAL DISTRIBUTED COMMAND AND CONTROL (GDC2): Detailed information is classified and will be provided on a need to know basis. For further information please contact the Strategic C2 Systems Branch (SAF/AQID) at (202) 404-3405. This effort will not be reported as part of the IT Enterprise. GDC2 will continue to be reported under PE 0303255F within BPAC 835160		
e. USSTRATCOM REPLACEMENT FACILITY FIT-OUT: No funding in FY20 and out		
Justification: USSTRATCOM IT Enterprise - This effort provides the Command and Control infrastructure and hardware to acquire, process, and deliver information, as needed, to enable and enhance decision making for USSTRATCOM. USSTRATCOM is tasked with vital roles for our nation. These roles require secure and survivable infrastructure in order to conduct strategic planning, warfighting operations, provide global situational awareness to the National Command Authorities and Combatant Commands, aid the President's nuclear response decision-making process. This effort employs a set of underlying information services, technologies, and tools to ensure a standard configuration of information technology architecture that operationalizes USSTRATCOM's mission priorities, with a Combat-Ready Force prepared for Decisive Response. The enterprise architecture is a collection of distributed databases and applications, integrated through a cloud-based infrastructure. The facility includes features and capabilities such as secure High-Altitude Electromagnetic Pulse (HEMP) Shielded Command and Control Center, Installation Processing Node, multiple 24/7 mission operations centers, storage and maintenance areas, labs/workrooms, backup generators, Uninterruptible Power Source, and Technical Control Facility.		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207422F, 0207444F, 0503133F

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	166.249	144.063	137.033	0.000	137.033	192.451	125.128	119.051	110.052	-	994.027
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	166.249	144.063	137.033	0.000	137.033	192.451	125.128	119.051	110.052	-	994.027
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	166.249	144.063	137.033	0.000	137.033	192.451	125.128	119.051	110.052	-	994.027

(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:

PE 0207418F AFSPECWAR - TACP - P-5

PE 0207418F TACTICAL AIRBORNE CONTROL SYSTEM EQUIPMENT

Tactical airborne control system equipment encompass three types of simulators that provide scenario based training for Joint Terminal Attack Controllers (JTACs), Combat Control Teams (CCTs), Tactical Air Control Party (TACPs), Air Support Operations Centers (ASOCs) and various Close Air Support (CAS) Platforms.

Joint Terminal Control Training and Rehearsal System (JTC TRS): TACP fixed-site (dome and desktop configurations) and portable Simulators comprise JTC TRS. These simulators provide realistic training to operations personnel for planning, coordinating and controlling close air support in support of ground forces engaged in combat operations by providing both a stand-alone and Distributed Mission Operations (DMO)-capable high-fidelity JTAC and joint fire support simulation system. The JTC TRS is capable of connecting to DMO networks to allow geographically separated high-fidelity close air support, C2 (including ASOC) and ISR platforms with JTACs and CCTs to train together in a risk-free environment to develop the skills required to support the National Defense Strategy (NDS). The fixed-site and portable simulators enable operators to conduct Joint Close Air Support (JCAS) training/mission rehearsal using tailored, dynamic scenarios that are relevant to mission tasking. The primary focus is to provide a virtual training environment for networked air-ground training and mission rehearsal capability that will develop both JTAC and CCT skills and train aircrew to accomplish complex JCAS missions in close proximity to friendly ground forces. JTAC simulators are fully interoperable with joint/other service air ground simulation systems using common DoD and industry standards. Training with simulators has the potential to reduce civilian casualties, collateral damage and fratricide by improving coordination skills between air and ground personnel, and increasing JTAC, CCT, and aircrew proficiency. The acquisition strategy for production and sustainment of the fixed configuration of the JTC TRS is being executed as an evolutionary acquisition approach using incremental development. Fielding of the initial domed and desktop system capability was completed EoCY 2019. Operational units have quickly integrating these systems into training programs to facilitate more realistic and affordable training than can be achieved in the live training environment. Requirements for additional numbers of systems have been approved by the MAJCOMs to support increased JTAC and CCT qualification and readiness for deployable JTACs, and manpower growth IAW AF Program Action Directives. Program efforts are ongoing to include removal of end-of-life software/hardware within the simulator systems to maintain a modular, common open system architecture that is sustainable and cyber-resilient. Implementation requirements and standards are defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative. Funds may be used to address emerging and short-notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues.

PE 0207422F Deployable C3 Systems - P-40A

Deployable C3 Systems PE 0207422F - P-40A

PE 0207422F DEPLOYABLE COMMAND, CONTROL, and COMMUNICATIONS (C3) SYSTEMS

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207422F, 0207444F, 0503133F
Line Item MDAP/MAIS Code: N/A		
<p>THEATER-DEPLOYABLE COMMUNICATIONS (TDC) PROGRAM: TDC is used to extend network data, voice and video services to expeditionary and battlefield forces. The TDC system provides stand-alone communications support for the full range of military operations and communications capability for Command and Control (C2) reach back at and above the tactical level for a variety of Air Force missions. TDC provides a rapidly deployable communication infrastructure package, which provides deployed users with secure and non-secure voice service, internet access, local area network, network management, information assurance, e-mail services (NIPR/SIPRNET), and intra/inter-base connectivity services similar to those established on a fixed base. The TDC packages: Small Communication Package (SCP), Medium Communication Package(MCP), Large Communication Package(LCP)use commercial-off-the-shelf (COTS) components to support a wide scope of expeditionary missions ranging from a small C2 and airfield mission, supporting 1 to 150 users, and up to the stand-up of an Air Expeditionary Wing supporting 3,000 users. The TDC packages also support Special Missions, to include noncombatant evacuation and disaster relief efforts, US Secret Service support, and Homeland Defense Operations. The LCP and MCP mission packages are being restructured into a more scalable package, the Flexible Communications Package (FCP), which will provide a range of support for most all missions. The Air Force's new adaptive basing concept requires an increase in the number of packages needed to meet the mission. The quantity of FCPs is significantly more than the MCP and LCP quantities. The FCP consists of SATCOM, Integrated Communications Package (ICAP) and Network Control Center- Deployed (NCC-D) components.</p> <p>The TDC program reached full operational capability in 2008. TDC procures and installs end of life/end of support equipment to maintain full operational capability. Recapitalization addresses Diminishing Manufacturing Sources (DMS) issues associated with COTS components and ensures TDC maintains compliance with security mandates/directives and cryptographic standards.</p> <p>THEATER-DEPLOYABLE COMMUNICATIONS (TDC) procurements consist of ICAP, SATCOM, and NCCD components. Recapitalization cost is based on the quantity of equipment, number of users they support, and the configurations of the three components. Size of recapitalization packages vary from year to year.</p> <p>a. SATCOM (formerly HUB AND SPOKE SATELLITE TERMINALS): Satellite terminals provide two-way communications connectivity between expeditionary bases and reach back, through Defense Information System Agency (DISA) gateways/teleports, to the global information grid. These terminals provide DOD X and Ka Band (Super High Frequency) resources and provide access to Ku band commercial satellite services. TDC's Small and Medium Satellite terminals improve the expeditionary workforce's bandwidth throughput for high-speed voice, data, video, and imagery transmissions. Small aperture SATCOM terminals supporting direct internet protocol connection capable of supporting multi-commercial and military transmission bands significantly reduce airlift requirements and provide flexibility during expeditionary operations.</p> <p>b. INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP): ICAP provides the distributed base backbone which includes: hubs/routers, switches, multiplexers, secure/non-secure telephones, secure conferencing, cryptographic and timing equipment, and intra-base connectivity using fiber and/or point-to-point radios. ICAP packages include accessories and configuration kits to tailor the capability of voice and data modules (i.e. cards to interface to the host nation postal telegraph and telephone). ICAP packages are modular which allows assets to be deployed incrementally and provides the capability to expand the network as the base population increases.</p> <p>c. NETWORK CONTROL CENTER-DEPLOYED (NCC-D): NCC-D provides deployed network management, information protection, and network planning capabilities similar to those at fixed bases. Specific functions include data management, intrusion detection, and firewall capabilities for both the classified and unclassified networks. The services provided through NCC-D are the core services to the communication hub and these Core Services will be the focus of the Flexible Communications Package (FCP).</p> <p>DEPLOYABLE AIR FORCE LEAD Joint Task Force (JTF) Communications Equipment: PAD D-18-01 directed the establishment of a standing capacity to provide Combatant Commanders and Air Force, unit-based capability to command and lead the core functions of any JTF. The JTF capable HQ aligned against the Global Response Force must be a deployable communications equipment system that enables the HQ to an adaptive, agile, scale-able, and responsive force. The JTF HQ communication package is to deliver the ability to operate with a relatively small footprint, to provide globally-oriented C2 capabilities, to flexibly aggregate and disaggregate forces quickly and efficiently, to integrate multi-domain effects across the spectrum of conflict and afford the service an opportunity to develop solutions that are informed from a unique perspective.</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> <p>Funding for this exhibit contained in PE 0207422F.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207422F, 0207444F, 0503133F
Line Item MDAP/MAIS Code: N/A		

FY19 funding totals include \$2.911M appropriated for Overseas Contingency Operations.
 FY20 funding totals include \$0.306M appropriated for Overseas Contingency Operations.

PE 0207423F Advanced Communications Systems - P-40A
 Advanced Communications Systems PE 0207423F
 PE 0207423F Mobile User Objective System (MUOS) and TACTICAL RADIO SYSTEMS (TRS)
 Tactical Radio System (TRS) are commercial off the shelf software programmable tactical radios that provide voice, data, and video communications for military users in the air, on the ground, and at sea.

Common radio architecture and programmable software waveforms will provide joint interoperability between the services. The TRS program is built around an open system software communications architecture (SCA), a critical set of rules that make software programmable radios function properly and ensure interoperability. Funding for this exhibit is contained in PE 0207423F.

PE 0207444F Tactical Air Control Party-Mod - P-5
 TACTICAL AIR CONTROL PARTY-MODERNIZATION (TACP-M): TACPs are Air Force units manned by airmen who advise Army Ground Commanders and plan, request and control air power in support of army ground maneuver operations.

The purpose of the TACP-Modernization program is to upgrade TACP voice, data and video communications capabilities, upgrade targeting capabilities, and improve TACP battlefield awareness capabilities. These capabilities are employed at all echelons of Army organizations by: Air Support Operation Centers (ASOCs), Division TACPs, Brigade TACPs, Battalion TACPs, and Joint Terminal Attack Controllers (JTACs) deployed with Army companies or scout teams on the front lines. Improved targeting and data communications capabilities provide more accurate target coordinates, reduce close air support (CAS) response times, and reduce the probability of fratricide or collateral damage through the use of networked data communications.

TACPs also coordinate, request, and control airlift support and intelligence, surveillance, and reconnaissance (ISR) support for Army combat operations, and they provide ground communications support for federal disaster response and Homeland Defense operations. TACPs deploy with their aligned Army units and operate in a variety of environments including fixed operations from tactical operations centers (TOCs), mobile operations in tactical vehicles, and dismounted (on foot) operations with Army infantry patrols.

The TACP-M program provides and modernizes capabilities in three major areas: Operation Center Systems, Vehicle-Mounted Systems, and Close Air Support System (CASS) software. The TACP-M program also works closely with the Battlefield Airmen Office program to procure dismounted JTAC equipment. This teaming arrangement helps standardize battlefield airmen equipment, improve efficiency by consolidating acquisition efforts, and often reduces unit costs by increasing procurement quantities. Frequent TACP combat deployments sometimes lead users to change equipment procurement priorities to support urgent operational needs and respond to evolving threat environments.

PE 0408011F Special Tactics / Combat Control - P-5
 PE 0408011F SPECIAL TACTICS / COMBAT CONTROL

BATTLEFIELD AIRMEN OPERATIONS KIT (BAO Kit): BAO Kit will deliver a Family of Systems (FoS) that provides a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) and also provides a family of systems for all Air Force Specialty Codes supporting the Special Tactics (ST) community within the Air Force Special Operations Command's (AFSOC's) Battlefield Airmen Program. This program will procure and enhance technologies for battlefield airmen ST operators that are inter-operable with US and coalition special operations dismounted forces. BAO Kit allows the ability to recognize, identify, range, nominate, and designate targets during both day and night. BAO Kit will also significantly reduce the time required to find, fix, track, target, and engage the enemy by providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre- and post-strike, and transmitting target data to command and control centers. BAO Kit systems are light, compact, and portable for use by dismounted Battlefield Airmen. Modernization efforts focus on reducing the weight of the equipment carried by the dismounted operator. The core capabilities include but are not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line of Sight (LOS) targeting device, Non Line of Sight (XLOS) targeting device, and Machine-to-Machine C4ISR System. BAO also supports AFSOC Tactical Command and Control (TAC C2) program purchases enhanced communication systems and equipment essential for ST combat controllers, pararescue, combat

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
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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: 0207422F, 0207444F, 0503133F
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Line Item MDAP/MAIS Code: N/A

weather operators, and tactical air control parties to perform their mission and communicate Beyond Line of Site (BLOS) with rear echelon C2, in order to provide a joint operating picture. The ST operators use this equipment to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing/drop zone operations. Items include but not limited to training, initial spares, repairs and returns, and other equipment.

Funding for this exhibit contained in PE 0408011F.

PE 0503133F Combat Rescue - Pararescue (AFR) - P-40A

PE 0503133F: COMBAT RESCUE - PARARESCUE (AFR)

Tactical communications and electrical equipment in support of special operations forces. No funding for FY21

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	2,942	2,406	60	0	60	-	-	-	-
	Total Obligation Authority	144.309	115.966	111.532	0.000	111.532	-	-	-	-
AFNG	Quantity	68	59	91	0	91	-	-	-	-
	Total Obligation Authority	18.415	23.333	20.893	0.000	20.893	-	-	-	-
AFR	Quantity	15	12	18	0	18	-	-	-	-
	Total Obligation Authority	3.525	4.764	4.608	0.000	4.608	-	-	-	-
Total: Secondary Distribution	Quantity	3,025	2,477	169	0	169	-	-	-	-
	Total Obligation Authority	166.249	144.063	137.033	0.000	137.033	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment
Equip / BSA 7: Organization and Base

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207422F, 0207444F, 0503133F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	AFSPECWAR - TACP		A		- / -	- / 6.845	- / 3.870	- / 1.539	- / -	- / 1.539
P-40a	Deployable C3 Systems				- / -	- / 57.956	- / 45.835	- / 45.677	- / 0.000	- / 45.677
P-40a	Advanced Communications Systems				- / -	- / 5.913	- / 6.297	- / 6.403	- / -	- / 6.403
P-5	Tactical Air Control Party-Mod		A		- / -	- / 42.846	- / 35.967	- / 54.393	- / -	- / 54.393
P-5	Special Tactics / Combat Control	P-5a	A		- / -	2,819 / 52.689	2,392 / 52.094	- / 29.021	- / 0.000	- / 29.021
P-40	Total Gross/Weapon System Cost				- / -	- / 166.249	- / 144.063	- / 137.033	- / 0.000	- / 137.033

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0207418F AFSPECWAR - TACP - P-5
 TACTICAL AIRBORNE CONTROL SYSTEM EQUIPMENT: FY21 funding provides for fielding of Digitally Aided CAS. Funds may be used to address emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

PE 0207422F Deployable C3 Systems - P-40A
 SATCOM (formerly HUB AND SPOKE SATELLITE TERMINALS): FY21 funds will procure the technical solution based on user functional requirements for Medium SATCOM terminal replacements for end of life/end of support terminals.

INTEGRATED COMMUNICATIONS ACCESS PACKAGE (ICAP): FY21 funds will procure new Flexible Communications Package (FCP) site distribution components and replacement of End of life components which may be part of kits and modules such as laptop kits, switches, IP phones and routers. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.

NETWORK CONTROL CENTER-DEPLOYED (NCC-D): FY21 funds will procure mandated upgrades as required for the NCC-D equipment in FCP. Replace hardware and software that loses cyber security vulnerability mitigations and original equipment manufacturer support as needed.

DEPLOYABLE AIR FORCE LEAD JTF EQUIPMENT:
 This is an emerging requirement based on decisions from CORONA South, March 2017, with PAD D18-01 defining the programmatic's for the requirement signed by CSAF and the Sec of the Air Force on July 1st 2018. The ACC PPIan 18-12, under coordination within ACC, will further define the functional requirement. ACC will direct use of dedicated funds to procure JTF Deployable Communications packages to support the deployable joint-capable AF-led JTF.

PE 0207423F Advanced Communications Systems - P-40A
 Advanced Communications Systems PE 0207423F
 PE 0207423F Mobile User Objective System (MUOS) and TACTICAL RADIO SYSTEM (TRS): FY21 Funds will be used to purchase but not limited to, Mobile User Objective System (MUOS) satellite kits (includes MUOS waveform, associated antennas, cables and diplexers) and training, as well as single channel and multi-channel man-pack radios. Other items to be purchased are advanced single-channel handheld radios, base stations, vehicle adapters, repeaters and non-COMSEC Controlled Item (CCI) handheld radios. FY 21 Funds will also be used to purchase any components to these radios and ancillary items, as well as training and vendor field support.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207422F, 0207444F, 0503133F
Line Item MDAP/MAIS Code: N/A		
<p>PE 0207444F Tactical Air Control Party-Mod - P-5 PE 0207444F TACTICAL AIR CONTROL PARTY-MOD TACTICAL AIR CONTROL PARTY-MODERNIZATION (TACP-M) ACQUISITION CATEGORIES: (1) Mounted Systems (used in fixed operations centers and tactical vehicles), (2) Dismounted Systems (used by JTACs during dismounted infantry operations), and (3) Close Air Support System (CASS) software. FY21 funding will procure the following:</p> <p>A. MOUNTED SYSTEMS: TACP communications systems are the primary enablers of CAS operations on the digitized battlefield, with operations center systems for fixed locations as well as mounted systems used in tactical vehicles:</p> <ol style="list-style-type: none"> 1. Operation Center Systems: TACP operations center systems include the fielded ASOC Gateway and Gateway Light systems, the transportable Dismounted Communication Package (DCP) systems mounted in transit cases, and in the future will include the TACP Transportable Gateway (TTG). The TTG will provide the capability to receive and transmit digital messages on data link networks at the ASOC and Division and Brigade-level Tactical Operations Centers (TOCs). The TTG will provide battlespace awareness capabilities and line-of-sight, near real time data communications with aircraft for digitally-aided close air support operations. TTG will be a transportable system within 1 or 2 transit cases and include one SCA compliant radio for SATCOM or LOS networked data communications, a small form factor link 16 radio, a power supply capable of using generator and commercial power, a computer to host TACP CASS software and data link control software, and all necessary masts, antennas, and cables. 2. Vehicle Systems: TACP vehicle systems include the GRC-259 system mounted in Stryker armored vehicles, an interim 2-channel mobile voice communications packages mounted in new M1165 High Mobility Multi-Wheeled Vehicles (HMMWVs), as well as the Mobile Communications System (MCS) for M1145 HMMWVs. These systems utilize Software Communications Architecture (SCA)-compliant multi-band radios, tactical video receivers, computers, and ancillary equipment required to conduct CAS voice, video, and data communications. <p>Following delivery of the MCS, the TACP-M program intends to procure or upgrade multi-channel data communications systems for M1165 HMMVs, M113 armored personnel carriers (used by TACPs supporting Army armored or mechanized Brigades), and the future Armored Multi-Purpose Vehicle (AMPV) and Joint Light Tactical Vehicle (JLTV). The AMPV and JLTV are new armored vehicles in development by the Army to replace the aging M113 and HMMWVs vehicles, and will be adopted by Air Force TACPs as well. Specific requirements and acquisition strategies for those systems will be developed after contract award for the M1145 MCS. In addition, the TACP-M program office expects to modify communications systems currently mounted in Stryker armored vehicles. This modification will provide a remote control capability required to conduct TACP communications from an Army Stryker Brigade tactical operations center (TOC).</p> <p>B. DISMOUNTED EQUIPMENT (used by JTACs during dismounted infantry operations):</p> <ol style="list-style-type: none"> 1. OPERATIONAL CONTROL SYSTEM (OCS)/COMPUTERS: Ruggedized Dismounted JTAC Computer Kits and ancillary equipment required to support Line-of-Sight (LOS) and Beyond-Line-of-Sight (BLOS) data communications with C2 nodes, other TACPs, and attack aircraft. These kits will also provide data link communications through the ASOC Gateway, targeting displays, map and imagery displays, and data JTACs need to compose, transmit, and receive CAS messages with minimal heads-down time during battles with enemy forces. The computers will accommodate TACP Close Air Support System (CASS) software upgrades that include Human-Machine Interface (HMI) improvements and implementation of Joint Digitally-aided Close Air Support standards published by the Joint Staff. Finally, they will provide cable systems and integrated power management capabilities that will extend battery life and reduce the number of external cables that present a snagging hazard during combat operations and are easily damaged. Kit quantities procured in FY17 may change depending on final unit prices, and interim support services may be funded as part of this procurement effort. 2. HANDHELD LASER TARGET DESIGNATORS (LTDs)/RANGEFINDERS (LRFs): TACPs require, smaller, lighter, handheld laser target designators and rangefinders (LTDs/LRFs) to replace the large, heavy Ground Laser Target Designator (GLTD) II devices currently fielded with TACP units. Dismounted TACPs/JTACs do not normally carry GLTD IIs on patrols due to the large size and weight of the device and the fact that it requires heavy, expensive, military batteries that increase the JTAC's combat load. In earlier years, TACP-M funding helped support system development in the Army-led Joint Effects Targeting System (JETS) program that is developing new handheld Target Location Designation System (TLDS) components for use by joint terminal attack controllers and artillery forward observers to improve target acquisition during all-weather conditions. Pending final Army development and production decisions, the TACP-M program may join the Army to procure these components. Emerging off-the-shelf technology, however, can also deliver a handheld LTD in a significantly smaller and lighter form factor suitable for use by dismounted JTACs. Quantities and funding required will depend on final unit prices and TACP force structure when funding is available. 		

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Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207422F, 0207444F, 0503133F
Line Item MDAP/MAIS Code: N/A		
<p>3. MULTI-SPECTRAL THERMAL MARKING DEVICE / BEACON: TACPs require a small, lightweight, covert, and positive identification capability that can be seen or detected with CAS aircraft targeting pods or other sensors. Current TACP/JTAC "marking" capabilities are limited to marking panels and Laser / IR pointers that can be seen by enemy personnel using night vision devices. A flashing thermal marking beacon that emits in the mid- and long-wave IR spectrum is required to mark friendly troop/JTAC locations in order to avoid fratricide and improve mission effectiveness.</p> <p>4. SMALL/LIGHT GPS RECEIVER MODULE: New small/light GPS receivers reduce the size and weight of equipment JTACs must carry to execute their combat mission and reduce equipment sustainment tasks that distract JTACs from their primary mission. TACP CASS mission software provides full moving map, navigation, and targeting functions that only requires GPS position, velocity, and time inputs. A smaller / lighter Selective Availability Anti-spoofing Module (SAASM) GPS receiver module that provides position, velocity and time data to the dismounted TACP CASS software is required to reduce Size, Weight, and Power (SWaP) burdens for dismounted JTACs. Replacing the Defense Advanced GPS Receiver (DAGR) with a small, light SAASM receiver will reduce the size and weight of JTAC equipment loads and also reduce the number of batteries JTACs must carry to power their equipment.</p> <p>5. SHORT WAVE INFRARED (SWIR) LASER SPOT DETECTOR/TRACKER: A SWIR capability will provide JTACs with improved ability to detect and track laser spots from ground laser designators and airborne laser targeting pods and allow JTACs to confirm that the laser spot is illuminating the correct target or adjust the laser spot before weapons are released. Current TACP laser spot detection capability (the See Spot III) is large and heavy, provides limited capability during daylight, and is limited by smoke, haze, rain, fog, and thermal crossover conditions. New off-the-shelf technology, however, provides SWIR viewing devices that can detect and track laser target designator spots through haze, fog, or smoke and is not susceptible to thermal crossover conditions.</p> <p>C. TACP CLOSE AIR SUPPORT SYSTEM (CASS) SOFTWARE INTEGRATION: TACP CASS software enables digital data communications with joint C2 nodes, other TACPs, attack aircraft, and Army C2 and Fire Support systems. It includes interfaces with ASOC, TACP and JTAC radios, and targeting devices. It also provides battlespace awareness capabilities needed to plan, request, coordinate, and control CAS missions. FY17 funding will be used to provide software maintenance updates for fielded versions, provide new Human Machine Interface (HMI) interfaces for a dismounted version of the software, incorporate new joint Digitally-aided CAS standards, and provide contract technical and help desk support to operators employing the software.</p> <p>The TACP-M program will also use FY21 funding to support Interim Contractor Support (ICS) for equipment such as, but not limited to, Operational Control Systems (OCS) and targeting devices prior to transitioning to long-term sustainment.</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> <p>PE 0408011F Special Tactics / Combat Control - P-5 PE 0408011F SPECIAL TACTICS / COMBAT CONTROL BATTLEFIELD AIRMEN OPERATIONS KIT (BAO Kit): BAO Kit will deliver a Family of Systems (FoS) that provides a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) and also provides a family of systems for all Air Force Specialty Codes supporting the Special Tactics (ST) community within the Air Force Special Operations Command's (AFSOC's) Battlefield Airmen Program. This program will procure and enhance technologies for battlefield airmen ST operators that are inter-operable with US and coalition special operations dismounted forces. BAO Kit allows the ability to recognize, identify, range, nominate, and designate targets during both day and night. BAO Kit will also significantly reduce the time required to find, fix, track, target, and engage the enemy by providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre- and post-strike, and transmitting target data to command and control centers. BAO Kit systems are light, compact, and portable for use by dismounted Battlefield Airmen. Modernization efforts focus on reducing the weight of the equipment carried by the dismounted operator. The core capabilities include but are not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line of Sight (LOS) targeting device, Non Line of Sight (XLOS) targeting device, and Machine-to-Machine C4ISR System. BAO also supports AFSOC Tactical Command and Control (TAC C2) program purchases enhanced communication systems and equipment essential for ST combat controllers, pararescue, combat weather operators, and tactical air control parties to perform their mission and communicate Beyond Line of Site (BLOS) with rear echelon C2, in order to provide a joint operating picture. The ST operators use this equipment to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing/drop zone operations. Items include but not limited to training, initial spares, repairs and returns, and other equipment.</p> <p>Funding for this exhibit contained in PE 0408011F. Special Tactics / Combat Control FY19 funding totals include \$25M for Overseas Contingency Operations.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207422F, 0207444F, 0503133F
Line Item MDAP/MAIS Code: N/A		
<p>PE 0408011F BATTLEFIELD AIRMEN OPERATIONS (BAO) Kit</p> <p>BATTLEFIELD AIRMEN OPERATIONS (BAO) Kit: FY21 funding will procure, test, support, and repair BAO Kit family of system components to optimize user information intake. Funding will be used to ensure interoperability to reduce the risk of fratricide, reduce the weight carried by individual airmen, and reduce the time required to find, fix, track, target, and engage the enemy. The core capabilities included are but not restricted to: Human Machine Interface (HMI), Operational Control System (OCS), Line-of-Sight (LOS) targeting device, Non-Line of-Sight (XLOS) targeting device, and Machine-to-Machine C4ISR system. Also, items included but not limited to training, initial spares, repairs and returns, and other equipment.</p> <p>a. HUMAN MACHINE INTERFACE (HMI): This FY21 funding will procure HMI components that will provide integrated operator interface between all the machine components by using unified visual and auditory displays and controls, such as head-mounted displays and tactical earplug connectivity with communications. This system provides optimized user information portrayal and control of peripheral devices, to include modernization of communications, computing devices, portable electrical power generation and management, targeting and situational awareness software (machine-to-machine) designed to reduce risk of fratricide and reduce the time required to employ precision effects on the battlefield to single-digit minutes.</p> <p>b. OPERATIONAL CONTROL SYSTEM (BAO KIT): FY21 funding will procure OCS units which is an integrated communication/display system comprised of a small wearable end user device, power and data management system, including integrated cabling and wireless data transmission that can readily connect and integrate all Battlefield Airmen Operations (BAO) Kit peripherals and portable power sources. The OCS system is a light weight, modular, plate carrier adaptable, integrated, easily configurable system that provides precise situational awareness, moving maps, and the ability to perform digitally-aided Close Air Support (CAS) targeting for all Battlefield Airmen and Special Operations Forces. The OCS is consumable with a lifespan of approximately two years. OCS is refreshed approximately every two years providing more durable hardware, reduced size and weight, and additional capability to the operator.</p> <p>c. LINE OF SIGHT (LOS): FY21 funding will procure LOS systems. LOS integrates target designators and sensors to enhance targeting effectiveness at ranges less than 3km. The equipment provides battlefield airmen with the ability to geo-locate targets in both eye-safe and non-eye safe spectrums. The modernization of this equipment will significantly reduce the weight carried by the operator. Funding will also support AFSOC TAC C2 program purchases of XLOS targeting devices that are essential for combat weather operators. Such equipment will allow operators to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing drop zone operations.</p> <p>Items requested in FY21 as identified on the P-5 Exhibit are representative but not limited to the items to be procured. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements.</p> <p>PE 0503133F Combat Rescue - Pararescue (AFR) - P-40A PE 0503133F: COMBAT RESCUE - PARARESCUE (AFR)</p> <p>No FY21 funding requested.</p>		

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Item Number / Title [DODIC]: AFSPECWAR - TACP

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	6.845	3.870	1.539	-	1.539
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	6.845	3.870	1.539	-	1.539
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	6.845	3.870	1.539	-	1.539

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - TACP Fixed Simulator - JTC TRS Cost																		
Recurring Cost																		
TACP Fixed Simulators - JTC TRS	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>
<i>Subtotal: Hardware - TACP Fixed Simulator - JTC TRS Cost</i>	-	-	-	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>
Software - Tactical Airborne Control Systems Cost																		
Recurring Cost																		
Digitally Aided CAS	-	-	-	0.342	20	6.845	1.290	3	3.870	0.513	3	1.539	-	-	-	0.513	3	1.539
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>6.845</i>	-	-	<i>3.870</i>	-	-	<i>1.539</i>	-	-	-	-	-	<i>1.539</i>
<i>Subtotal: Software - Tactical Airborne Control Systems Cost</i>	-	-	-	-	-	<i>6.845</i>	-	-	<i>3.870</i>	-	-	<i>1.539</i>	-	-	-	-	-	<i>1.539</i>
Gross/Weapon System Cost	-	-	-	-	-	6.845	-	-	3.870	-	-	1.539	-	-	-	-	-	1.539

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	6.845	3.870	1.539	-	1.539
Total:	Quantity	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Air Force				Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7		P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment		Item Number / Title [DODIC]: AFSPECWAR - TACP		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	6.845	3.870	1.539	-	1.539

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837100 / Tactical C-E Equipment **Aggregated Items Title:** Deployable C3 Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware, Recurring																				
TDC - Integrated Communications Access Package	A		-	-	-	0.345	42	14.490	0.343	20	6.860	0.345	47	16.215	-	-	0.000	0.345	47	16.215
<i>Secondary Distribution</i>																				
AF			-	-	-		35	12.075		1	0.343		6	2.070		-	0.000		6	2.070
AFNG			-	-	-		7	2.415		16	5.488		32	11.040		-	-		32	11.040
AFR			-	-	-		-	0.000		3	1.029		9	3.105		-	-		9	3.105
TDC - Network Control Center - Deployed	A		-	-	-	0.235	151	35.485	0.265	1	0.265	0.271	1	0.271	-	-	-	0.271	1	0.271
<i>Secondary Distribution</i>																				
AF			-	-	-		84	19.740		1	0.265		1	0.271		-	-		1	0.271
AFNG			-	-	-		52	12.220		-	-		-	-		-	-		-	-
AFR			-	-	-		15	3.525		-	-		-	-		-	-		-	-
TDC - SATCOM (formerly Hub and Spoke Satellite Terminals)	A		-	-	-	0.420	10	4.200	0.415	61	25.315	0.167	118	19.706	-	-	-	0.167	118	19.706
<i>Secondary Distribution</i>																				
AF			-	-	-		1	0.420		9	3.735		50	8.350		-	-		50	8.350
AFNG			-	-	-		9	3.780		43	17.845		59	9.853		-	-		59	9.853
AFR			-	-	-		-	-		9	3.735		9	1.503		-	-		9	1.503
Deployable Air Force Lead JTF Equipment	A		-	-	-	0.500	1	0.500	9.900	1	9.900	6.600	1	6.600	-	-	-	6.600	1	6.600
<i>Secondary Distribution</i>																				
AF			-	-	-		1	0.500		1	9.900		1	6.600		-	-		1	6.600
Subtotal: Hardware, Recurring			-	-	-	-	-	54.675	-	-	42.340	-	-	42.792	-	-	0.000	-	-	42.792
Services																				
TDC - PMA Contractor Services	A		-	-	-	-	-	2.388	-	-	2.335	-	-	1.685	-	-	-	-	-	1.685
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	2.388	-	-	2.335	-	-	1.685	-	-	-	-	-	1.685
TDC - PMA Other Government Costs	A		-	-	-	-	-	0.893	-	-	1.160	-	-	1.200	-	-	-	-	-	1.200
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.893	-	-	1.160	-	-	1.200	-	-	-	-	-	1.200
Subtotal: Services			-	-	-	-	-	3.281	-	-	3.495	-	-	2.885	-	-	-	-	-	2.885
Total			-	-	-	-	-	57.956	-	-	45.835	-	-	45.677	-	-	0.000	-	-	45.677

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Aggregated Items Title: Deployable C3 Systems

Remarks:

- a. CONTROLLED ITEM will be funded with investment funds to purchase military communications equipment classified as critical protection items.
- b. PROGRAM SUPPORT COSTS (PSC):

PSC for Theater Deployable Communications supports the operation of the program office in its management and oversight role, to include engineering and technical support, as well as support activities for the program.
- c. DIRECT MISSION SUPPORT (DMS):

DMS for TDC includes all support associated with equipment installation, engineering, technical support orders, sustainment engineering, and implementation. This includes the initial bed down and operability testing, technical interchange meetings, and events associated with fielding both hardware and software products, and maintaining configuration control of fielded products.
- d. FY21 DEPLOYABLE AIR FORCE LEAD JTF EQUIPMENT: Technical solution for the JTF capable deployable unit based on the functional requirements in PAD 18-01

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7						P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment						Aggregated Items Title: Advanced Communications Systems							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Contracts																				
MUOS Contracts	A		-	-	-	5.713	1	5.713	6.097	1	6.097	6.203	1	6.203	-	-	-	6.203	1	6.203
<i>Secondary Distribution</i>																				
AF			-	-	-	-	1	5.713	-	1	6.097	-	1	6.203	-	-	-	-	1	6.203
Subtotal: Contracts			-	-	-	-	-	5.713	-	-	6.097	-	-	6.203	-	-	-	-	-	6.203
Program Support																				
Program Support	A		-	-	-	0.200	1	0.200	0.200	1	0.200	0.200	1	0.200	-	-	-	0.200	1	0.200
<i>Secondary Distribution</i>																				
AF			-	-	-	-	1	0.200	-	1	0.200	-	1	0.200	-	-	-	-	1	0.200
Subtotal: Program Support			-	-	-	-	-	0.200	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
Total			-	-	-	-	-	5.913	-	-	6.297	-	-	6.403	-	-	-	-	-	6.403

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

Remarks:

Advanced Communications Systems PE 0207423F
 PE 0207423F Mobile User Objective System (MUOS) and TACTICAL RADIO SYSTEMS (TRS)
 Tactical Radio System (TRS) are commercial off the shelf software programmable tactical radios that provide voice, data, and video communications for military users in the air, on the ground, and at sea.

Common radio architecture and programmable software waveforms will provide joint interoperability between the services. The TRS program is built around an open system software communications architecture (SCA), a critical set of rules that make software programmable radios function properly and ensure interoperability. Funding for this exhibit is contained in PE 0207423F.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Item Number / Title [DODIC]: Tactical Air Control Party-Mod

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	42.846	35.967	54.393	-	54.393
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	42.846	35.967	54.393	-	54.393
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	42.846	35.967	54.393	-	54.393

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
TACP TRANSPORTABLE GATEWAY (TTG)	-	-	-	1.325	2	2.650	1.325	2	2.650	-	-	0.686	-	-	-	-	-	0.686
MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 2	-	-	-	0.149	71	10.614	0.150	64	9.576	-	-	30.092	-	-	-	-	-	30.092
ARMORED MULTI-PURPOSE VEHICLE (AMPV)	-	-	-	0.805	1	0.805	0.628	5	3.141	0.730	5	3.651	-	-	-	0.730	5	3.651
Joint Light Tactical Vehicle (JLTV)	-	-	-	-	-	-	-	-	-	0.223	26	5.789	-	-	-	0.223	26	5.789
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	14.069	-	-	15.367	-	-	40.218	-	-	-	-	-	40.218
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	14.069	-	-	15.367	-	-	40.218	-	-	-	-	-	40.218
Hardware - Hardware end item Cost																		
Non Recurring Cost																		
MOBILE COMMUNICATIONS SYSTEMS (MCS) Block 1	-	-	-	1.460	1	1.460	-	-	-	-	-	-	-	-	-	-	-	-
TACTICAL TRANSPORTABLE GATEWAY (TTG)	-	-	-	1.870	1	1.870	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Air Force													Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment						Item Number / Title [DODIC]: Tactical Air Control Party-Mod					
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:								

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ARMORED MULTI-PURPOSE VEHICLE (AMPV)	-	-	-	0.000	1	0.000	0.446	1	0.446	-	-	-	-	-	-	-	-	-
TACTICAL TRANSPORTABLE GATEWAY (TTG) (GFE)	-	-	-	1.005	12	12.065	-	-	-	-	-	-	-	-	-	-	-	-
MINI MOBILE DIRECTIONAL ANTENNA SYSTEMS (MDAS)(DISM)	-	-	-	0.580	5	2.900	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	18.295	-	-	0.446	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Hardware end item Cost</i>	-	-	-	-	-	18.295	-	-	0.446	-	-	-	-	-	-	-	-	-
Support - 0207444F Cost																		
CRANE SUPPORT	-	-	-	5.015	1	5.015	5.331	1	5.331	5.208	1	5.208	-	-	-	5.208	1	5.208
PMA CONTRACTOR SERVICES	-	-	-	-	-	3.571	2.741	1	2.741	2.529	1	2.529	-	-	-	2.529	1	2.529
PMA OTHER GOV'T COSTS	-	-	-	-	-	1.228	0.591	1	0.591	0.749	1	0.749	-	-	-	0.749	1	0.749
TEST SUPPORT	-	-	-	0.668	1	0.668	1.995	1	1.995	0.977	1	0.977	-	-	-	0.977	1	0.977
Test Benches	-	-	-	-	-	-	3.263	1	3.263	4.318	1	4.318	-	-	-	4.318	1	4.318
TTG GFE	-	-	-	-	-	-	6.233	1	6.233	0.394	1	0.394	-	-	-	0.394	1	0.394
<i>Subtotal: Support - 0207444F Cost</i>	-	-	-	-	-	10.482	-	-	20.154	-	-	14.175	-	-	-	-	-	14.175
Gross/Weapon System Cost	-	-	-	-	-	42.846	-	-	35.967	-	-	54.393	-	-	-	-	-	54.393

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	42.846	35.967	54.393	-	54.393
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	42.846	35.967	54.393	-	54.393

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Item Number / Title [DODIC]: Special Tactics / Combat Control
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	2,819	2,392	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	52.689	52.094	29.021	0.000	29.021
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	52.689	52.094	29.021	0.000	29.021
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	52.689	52.094	29.021	0.000	29.021

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	0.019	0.022	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
HUMAN MACHINE INTERFACE ^(†)	-	-	-	0.017	1,970	32.670	0.021	1,370	28.762	0.014	1,186	16.604	-	-	0.000	0.014	1,186	16.604
OPERATIONAL CONTROL SYSTEM (BAO KIT) ^(†)	-	-	-	0.020	800	16.000	0.020	987	19.732	0.011	840	9.220	-	-	-	0.011	840	9.220
LINE OF SIGHT	-	-	-	0.002	800	1.880	0.040	37	1.468	0.040	36	1.440	-	-	-	0.040	36	1.440
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	50.550	-	-	49.962	-	-	27.264	-	-	0.000	-	-	27.264
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	50.550	-	-	49.962	-	-	27.264	-	-	0.000	-	-	27.264
Support - Support End Item Cost																		
PMA CONTRACTOR SERVICES	-	-	-	-	-	1.149	-	-	1.122	-	-	1.033	-	-	-	-	-	1.033
PMA OTHER GOVERNMENT COSTS	-	-	-	-	-	0.990	-	-	1.010	-	-	0.724	-	-	-	-	-	0.724
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	2.139	-	-	2.132	-	-	1.757	-	-	-	-	-	1.757
Gross/Weapon System Cost	-	-	-	0.019	2,819	52.689	0.022	2,392	52.094	-	-	29.021	-	-	0.000	-	-	29.021

Remarks:

- a. Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items.
- b. Program Management Administration (PMA): Cost support management with engineering and technical implementation. PMA supports Program TDC with Engineering, and technical support activities.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Item Number / Title [DODIC]: Special Tactics / Combat Control
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	2,819	2,392	-	-	-
	Total Obligation Authority	52.689	52.094	29.021	0.000	29.021
Total: Secondary Distribution	Quantity	2,819	2,392	-	-	-
	Total Obligation Authority	52.689	52.094	29.021	0.000	29.021

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837100 / Tactical C-E Equipment	Item Number / Title [DODIC]: Special Tactics / Combat Control
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
HUMAN MACHINE INTERFACE		2019	Multiple / Multiple	Various	AFLCMC Wright Patterson AFB	Oct 2018	Jan 2019	1,970	0.017	Y		
HUMAN MACHINE INTERFACE		2020	Multiple / Multiple	Various	AFLCMC Wright Patterson AFB	Oct 2019	Jan 2020	1,370	0.021	Y		
HUMAN MACHINE INTERFACE		2021	Multiple / Multiple	Various	AFLCMC Wright Patterson AFB	Oct 2020	Jan 2021	1,186	0.014	Y		
OPERATIONAL CONTROL SYSTEM (BAO KIT)		2019	Black Diamond, LLC. / AZ	SS / FFP	AFLCMC Wright Patterson AFB	Feb 2019	Mar 2019	800	0.020	Y		
OPERATIONAL CONTROL SYSTEM (BAO KIT)		2020	Black Diamond, LLC / AZ	SS / FFP	AFLCMC Wright Patterson AFB	Feb 2020	Mar 2020	987	0.020	Y		
OPERATIONAL CONTROL SYSTEM (BAO KIT)		2021	Black Diamond, LLC / AZ	SS / FFP	AFLCMC Wright Patterson AFB	Feb 2021	Mar 2021	840	0.011	Y		

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base

P-1 Line Item Number / Title:
837190 / Radio Equipment

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	11.961	15.402	15.264	-	15.264	14.776	15.033	15.304	34.407	-	122.147
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	11.961	15.402	15.264	-	15.264	14.776	15.033	15.304	34.407	-	122.147
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	11.961	15.402	15.264	-	15.264	14.776	15.033	15.304	34.407	-	122.147

(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 capital equipment replacement program procures, integrates, and fields High Frequency Global Communications System (HFGCS) high frequency (HF) radio equipment, network infrastructure, and transmit /receive antennas for 13 strategically located ground stations worldwide and 2 network control stations. The hardware and integration is based on commercial-off-the-shelf (COTS) products that have been configured for the Department of Defense (DOD) to provide the unique military capabilities required to function as a strategic HF system. The need for modern, robust, and dependable radio stations with beyond line of sight radio coverage has been identified to ensure HF radio communications is available in areas of interest to the United States.

HFGCS is the DoD's single global, strategic, high-power HF Nuclear Command, Control and Communication (NC3) and non-nuclear Command and Control (C2) network serving the DOD. HFGCS consists of the two major components: the radio /network infrastructure (Scope Command) and the antenna infrastructure (Antenna Program Support) which communicate with mobile assets (aircraft, ships, and land-based platforms). HFGCS is USSTRATCOM's primary strategic HF pre-attack NC3 dependency system providing broadcasts to the US Air Force bomber and US Navy TACAMO fleets. HFGCS supports aircrews, ground forces, naval operations (USN and USCG), and control stations, and is the primary C2 resource for Air Mobility Command cargo and tanker aircraft. Additional customers include White House Communications Agency (WHCA), Defense Communications System HF Entry, and other US government agencies. HFGCS supports war plan dissemination and daily operational requirements for USSTRATCOM, WHCA, Joint Chiefs of Staff (JCS), National Military Command Center's Emergency Action Message distribution, Special Air Mission communications, Major Air Force Commands and Combatant Commanders. HFGCS provides radio connectivity to other governmental organizations such as the Department of Homeland Security, Federal Emergency Management Agency, Transportation Security Administration, State Department and Civil Air Patrol. The HFGCS network supports Overseas Contingency Operations with secure, robust, physically diverse terrestrial and airborne transmission paths providing information services between fixed and deployed operating locations. HFGCS has also been identified as a key communications component in supporting operations in a satellite anti-access area-denial (A2AD) environment.

The HFGCS program continues to update audio switching equipment, receive matrix equipment, and other unsupportable end-of-life components and to provide increased mandated information assurance system security compliance requirements. This requires technical refresh of the unsustainable equipment and communications infrastructure supporting NC3 /C2 operations. Included is also Direct Mission Support /Program Management Administration (DMS /PMA), System Engineering, Joint Interoperability Test Center (JITC) installation testing and shipping costs for these procurement efforts.

Funding for this exhibit contained in PE 0303133F.

Military Necessity: Controlled Item will be funded with investment funds to purchase military communications equipment classified as critical protection items.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base

P-1 Line Item Number / Title:
837190 / Radio Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Radio Equipment				- / -	- / 11.961	- / 15.402	- / 15.264	- / -	- / 15.264
P-40	Total Gross/Weapon System Cost				- / -	- / 11.961	- / 15.402	- / 15.264	- / -	- / 15.264

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

1. **SCOPE COMMAND RADIO/NETWORK INFRASTRUCTURE:** The Scope Command Radio/Network Infrastructure projects continue the implementation of replacement commercial off-the-shelf (COTS) radio and console capabilities into the HFGCS network. The FY21 HFGCS Network Infrastructure program includes, but is not limited to, the Unified Capabilities/Audio Communications Functionality (UC/ACF) switch technical refresh and obsolete Receive Matrix Replacement. This funding request will also support potential diminishing manufacture sources and material shortages (DMSMS) and obsolescence solutions for radio equipment and network hardware/servers, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Funds will be utilized for hardware updates/integration and initial spares that do not qualify for Centralized Asset Management (CAM) funding to include, but not limited to, updating existing site configurations to support modified network baselines and mandated cyber security compliance requirements.

A. FY21 funding continues the Unified Capabilities/Audio Communications Functionality audio switch technical refresh to replace the obsolete and unsupported 1990s era audio switch. This replaces the obsolete Digital Electronic Switch (DES), as neither the IDPX-1000 nor Liberty Star-3 (LS-3) switch is on the Defense Information Systems Agency (DISA) approved product list (APL) and have become logistically unsupportable.

B. FY21 continues funding the global replacement of the new 15 Receive Matrices at the 13 radio stations, system integration lab, and spares. Funding integrates existing infrastructure to control the new Receive Matrix. The existing receive matrices have become obsolete with no spare parts being manufactured to maintain the capability to interface between the radios and antennas.

C. FY21 begins funding the Radio Procurement for Operational Reliability (RAPTOR) effort, integrating a replacement of legacy obsolete radios with software defined radio technology. This multi-year effort will technical refresh all operational radios located at the 13 radio stations world-wide and the system integration lab.

2. **HIGH FREQUENCY GLOBAL ANTENNA REPLACEMENT:** A majority of the HFGCS system antennas have been in operation for over 35 years and have been subjected to degradation due to exposure to severe environmental conditions such as salt water and hurricane force winds. FY21 funds continue the replacement of critical antennas at HFGCS sites; actual locations and antenna selections will be based on technical assessment of the antenna condition and the operational requirements of the weapon system during execution. FY21 efforts include, but not limited to, replacing 5 antennas across the enterprise. This funding request will support potential DMSMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. Funds will be utilized for hardware updates and spares that do not qualify for Centralized Asset Management (CAM) funding to include, but not limited to updating existing site configurations, compliance with local site installation restrictions, and mitigation of potential local environmental considerations.

3. FY21 funds for program management administration costs will provide travel, financial management, engineering and technical support for the program office. FY21 also funds Direct Mission Support, including support associated with engineering, sustainment engineering, shipping, and implementation. This includes operational acceptance testing and technical interchange meetings.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837190 / Radio Equipment **Aggregated Items Title:** Radio Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Scope Command Radio/Network Infrastructure																				
Ethernet Switch Replacement	A		-	-	-	0.660	1	0.660	-	-	-	-	-	-	-	-	-	-	-	-
Unified Capabilities/Audio Communications Functionality (UC/ACF)	A		-	-	-	2.500	1	2.500	5.000	1	5.000	6.000	1	6.000	-	-	-	6.000	1	6.000
Receive Matrix Replacement	A		-	-	-	3.315	1	3.315	2.173	1	2.173	1.048	1	1.048	-	-	-	1.048	1	1.048
Radio Procurement for Operational Reliability (RAPTOR)	A		-	-	-	-	-	-	-	-	-	1.000	1	1.000	-	-	-	1.000	1	1.000
Server Replacement	A		-	-	-	3.500	1	3.500	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Scope Command Radio/Network Infrastructure			-	-	-	-	-	9.975	-	-	7.173	-	-	8.048	-	-	-	-	-	8.048
Antenna Replacement																				
HFGCS Station Antenna Replacements	A		-	-	-	-	-	0.000	1.330	5	6.651	1.121	5	5.606	-	-	-	1.121	5	5.606
Antenna Site Support	A		-	-	-	0.808	1	0.808	0.300	1	0.300	0.327	1	0.327	-	-	-	0.327	1	0.327
Subtotal: Antenna Replacement			-	-	-	-	-	0.808	-	-	6.951	-	-	5.933	-	-	-	-	-	5.933
DMS/PMA																				
Direct Mission Support (DMS) [Systems Engineering, Testing, Shipping]	A		-	-	-	-	-	0.650	-	-	0.750	0.753	1	0.753	-	-	-	0.753	1	0.753
PMA Contractor Services	A		-	-	-	-	-	0.403	-	-	0.403	0.403	1	0.403	-	-	-	0.403	1	0.403
PMA Other Government Costs	A		-	-	-	-	-	0.125	-	-	0.125	0.127	1	0.127	-	-	-	0.127	1	0.127
Subtotal: DMS/PMA			-	-	-	-	-	1.178	-	-	1.278	-	-	1.283	-	-	-	-	-	1.283
Total			-	-	-	-	-	11.961	-	-	15.402	-	-	15.264	-	-	-	-	-	15.264

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

Remarks:
 1). Due to different levels of complexity, differences in equipment to be updated and length of required time necessary for modification total cost will fluctuate between fiscal years.
 2). Differences in site specific setup (due to variations between mission specific needs and differences in site type will drive differences in site specific requirements (e.g., time required, hardware required and software required). This makes quantification impossible, as there is no single baseline to produce a quantity against.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base	P-1 Line Item Number / Title: 837240 / CCTV/Audiovisual Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	3.005	2.211	0.000	-	0.000	0.000	0.000	0.000	0.000	-	5.216
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	3.005	2.211	0.000	-	0.000	0.000	0.000	0.000	0.000	-	5.216
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	3.005	2.211	0.000	-	0.000	0.000	0.000	0.000	0.000	-	5.216

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

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

Description:

Funding for this exhibit contained in PEs 0102890F, 030555F, 0401319F and 0808534F.

Visual Information Activities - Strategic PE 0102890F - P-40A

Imagery Acquisition and Audiovisual (AV) systems and their products are used throughout the Air Force to inform and train warfighters and to document combat operations and other events of historical significance. Combat video documentation is used for operational reporting and analysis, situational awareness, battle damage assessment, intelligence and operational analysis, casualty identification, and the historical record. In addition, video and multimedia based products are developed for warfighter operations, readiness training, medical videography, public and internal information, testing and evaluation, and corporate communications. Commanders recognize that imagery quickly conveys very accurate and unbiased information, and are requiring greater amounts of video imagery to help meet the challenges of a very active warfighting force. The Air Force is meeting this challenge by dedicating funding to procure and sustain this important capability by replacing older video studio systems with newer and more capable equipment and systems for both Air Force video production and combat/contingency documentation teams. Imagery acquisition systems are centrally managed to establish and maintain standardization of systems, as well as to ensure full interoperability with all other electronic image acquisition, transmission system formats, and presentation systems used in the Air Force.

WESTERN TEST RANGE DIGITAL IMAGING SYSTEMS: This program replaces obsolete, 35+ year-old high-speed engineering film cameras with high-speed digital imaging systems and also upgrades Optical Tracking Mounts to accommodate the new digital imaging systems. This capital equipment replacement procures items to maintain current capability. These cameras are mounted on mobile optical tracking systems and on camera towers next to the launch pad to provide detailed slow motion photography of the launch events. The cameras support satellite, ballistic, missile defense, and aeronautical missions on the Western Test Range and at Kodiak Island, Alaska. The optical data acquired by these engineering camera systems is a vital part of post flight performance analysis of all space and ballistic launch operations and is critical for Test and Evaluation programs now being conducted by the Missile Defense Agency (MDA) at Vandenberg AFB. Optical tracking provides detailed engineering sequential photography for anomaly resolution and accident reconstruction at distances up to 60 kilometers, and is required for all current and future MDA tests and Delta IV, Atlas IV, Delta II, Peacekeeper, Minuteman, Airborne Laser, Kinetic Kill Vehicle, and commercial space launches. These digital systems replace film camera systems that are no longer logistically supportable.

PRESIDENTIAL AIRCRAFT RECAPITALIZATION (PAR) - One-time upgrade to PAR audio visual equipment.

Justification:

No funding requested for FY21.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	153.476	55.357	132.281	30.717	162.998	136.292	158.055	48.007	48.885	-	763.070
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	153.476	55.357	132.281	30.717	162.998	136.292	158.055	48.007	48.885	-	763.070
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	153.476	55.357	132.281	30.717	162.998	136.292	158.055	48.007	48.885	-	763.070
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PE 0102325F Atmospheric Early Warning System - P-40A
 Atmospheric Early Warning System (PE 0102325F)
 (New Start)

PE 0207500F IT Services- AFIMSC- Operating Forces Spt - P-40A

Funds will support the replacement of a degraded Air Force communication infrastructure. Procure information technology infrastructure to meet industry standards and reduce future year maintenance cost and improved reliability to deliver enterprise IT services. Modernize Air Force Telephone Voice Switching Systems and infrastructure is required to avoid further mission delays and stoppage.

PE 0208535F Collateral Equipment - Tactical Air Forces - P-40A
 Collateral Equipment - Tactical Air Forces PE 0208535F/EIC FP15:
 (New Start)

This program procures equipment to support the European Infrastructure Consolidation (EIC), providing equipment to fit-out the Joint Intelligence Analytic Center/NATO Intelligence Fusion Center (JIAC/NIFC) complex at RAF Molesworth. The JIAC/NIFC operational facilities at RAF Molesworth will consolidate European intelligence functions critical to the USEUCOM warfighting mission.

PE 0308611F Communications and Information Technology - P-40A

AFSPC Communications Infrastructure Equipment: Funds enable timely and assured delivery of data, video and voice communications supporting a wide range of Air Force organizations and decision makers, providing the space enterprise with a robust communications infrastructure. This funding supports life cycle management of space communications network(s) in order to maintain consistent, compatible, and interoperable capability in support of multi-domain operations. Funds are also needed to provide C4I support for military construction projects, a multitude of smaller, individual communications, computer, air traffic control and weather instrumentation connectivity needs. This funding will be executed by HQ AFSPC or associated space units.

PE 0401319F VC-25B - P-40A

The VC-25B Program, formerly known as the Presidential Aircraft Recapitalization (PAR) Program, will replace the Presidential VC-25A fleet which faces capability gaps, rising maintenance costs, and parts obsolescence as it reaches the end of its planned 30-year life-cycle. The VC-25B Program Office will deliver a new fleet of aircraft to meet the requirements for the President to execute the duties of Head of

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>State, Chief Executive, and Commander-in-Chief. FY21 funds will be used to provide data, voice, and video equipment required to support new PAR Complex military construction project and enable operations of Presidential Airlift Group within the facility.</p> <p>PE 0205219F MQ-9 UAV - P-40A MQ-9 Reaper Squadron Operations Centers (SOCs) enable Remote Split Operations (RSO), provide critical mission data and tasking information to the aircrew and disseminate and/or exchange mission data with decision-makers and the intelligence community.</p> <p>PE 0303004F EIT CONNECT - P-40A Air Combat Command (ACC) Lead Command Base Communications Infrastructure: E&I supports enterprise network capability and life cycle replacement of common user communications systems, AF Network Defensive capabilities, as well as Installation Emergency Management (IEM) infrastructure. E&I funds support communications availability and reliability, providing consistent, compatible, and interoperable capability through advanced technology and architecture. Installations include network communications infrastructure, fiber optic and copper cabling, and associated manhole duct systems for cable projects. In FY2021, PE 0207436F (Engineering and Installation Support AF), efforts were transferred to PE 0303004F (EIT Connect), in order to align resources under the Enterprise Information Technology portfolio.</p> <p>PE 0303005F EIT END USER DEVICES - P-40A a. Air Force District Washington (AFDW) Base Communications Network Equipment: Funds procure wide and local area network hardware (i.e., servers, routers, hubs and network systems) at Joint Base Anacostia-Bolling, Joint Base Andrews, and Headquarters Air Force. This program invests in office automation systems and computer networks in order to procure high-quality, high-speed connections to both public and classified network, and equipment required to react to emerging and emergency mission requirements in the National Capital Region (NCR). In FY2021, PE 0305550F (Information Technology Services Management - Other), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio. b. Air Force Materiel Command (AFMC) Base Communications infrastructure Equipment: Funding allows AFMC to support AF operations by sustaining critical cyber systems that provide timely and assured delivery of data and voice communications for organizations at nine AFMC installations with 100,000 personnel. Funding directly supports the warfighter on a 24/7 operational basis by providing AFMC the ability to deliver cyber capabilities to sustain aircraft sortie generation rates, weapon systems availability, system operational testing, and timely acquisition of equipment parts. This program is vital for AFMC's life cycle management of network servers, service desk, repair of critical communications infrastructure, routers, ductwork, cables, Land Area Networks (LANs), voice and data switches, and Mass Notifications and Land Mobile Radio (LMR) systems. Funding allows for end-of-life replacement of end building node network, data and voice hardware that complies with AF cyber architecture enterprise standards. In FY2021, PE 0708550F (Information Technology Services Management - Logistics), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio. c. Air Force District Washington (AFDW) Base Communications Infrastructure Equipment: Funds support network infrastructure replacements and AFDW's classified and unclassified networks. These efforts directly support strategic decision making, execution of operations, and support to US senior leadership including the POTUS, SECDEF, CJCS, and the CSAF. This is a continuing requirement. In FY2021, PE 0408550F (Information Technology Services Management - Mobility Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio. d. Air Force Special Operations Command (AFSOC) Base Communications Infrastructure Equipment: This equipment supports more than 18,000 AFSOC active-duty, Air Force Reserve, Air National Guard and civilian personnel and allow AFSOC to meet the mission of presenting combat ready forces to conduct and support global special operations missions. Funds end of life IT connect infrastructure to provide dial tone and Internet access across the AFSOC enterprise. This is a continuing requirement, where aging legacy components are no longer funded through other cyber portfolios and each MAJCOM must replace these critical components. In FY2021, PE 0208550F (Information Technology Services Management - Tactical Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio. e. Pacific Air Forces (PACAF) Base Communications Infrastructure Equipment: PACAF network equipment and life cycle replacement of base information technology systems supports base operations, command-wide connectivity, and transformation efforts. The large geographic separation between PACAF units significantly raises the importance of a robust communications infrastructure to ensure war fighter access to secure voice, data, and video systems. In FY2021, PE 0208550F (Information Technology Services Management - Tactical Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>f. Air Combat Command (ACC) Base Communications Infrastructure Equipment: ACC base communications funds support life cycle management of network servers, routers, ductwork, cables, LANs, voice and data switches, Land Mobile Radio (LMR) systems, and end building node hardware. This infrastructure meets the requirements of ACC's 143,000 active-duty, Air Force Reserve, Air National Guard and civilian personnel at 11 major bases and 7 associated units throughout the United States. In FY2021, PE 0208550F (Information Technology Services Management - Tactical Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.</p> <p>g. USAFE-AFAFRICA Base Communications Infrastructure Equipment: USAFE-AFAFRICA base communications funding supports the acquisition, and installation of base network infrastructures, especially C2 communications, located at USAFE-AFAFRICA Main Operating Bases (MOBs) and Geographically Separated Units (GSUs) consisting of a HQ, one numbered Air Force, seven MOBs and 137 GSUs. Specific critical base communications infrastructure provide support for Headquarters, Warfighting Numbered Air Force and Operational wings, flight support, emergency actions, and the operational planning, delivering, sustaining, integrating, and managing of USAF communications capabilities, networks, and applications in the USEUCOM and USAFRICOM theaters based on geographical combatant command orders and plans. Base communications infrastructure is required to support the European Infrastructure Consolidation (EIC) which is an OSD-directed process to restructure basing of forces within the European Command (EUCOM) Area of Responsibility (AOR). Base communications infrastructure is also required to support the European Deterrence Initiative (EDI). EDI supports increased rotational presence of air, ground and sea forces throughout Europe, increased and added bilateral and multilateral exercises and training events with U.S. allies and partners in Europe, improved infrastructure to allow for greater responsiveness across Europe, enhanced prepositioning of U.S. equipment across Europe, and intensified our efforts to build partner capacity for newer NATO members and partners. In FY2021, PE 0208550F (Information Technology Services Management - Tactical Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.</p> <p>h. Air Education and Training Command (AETC) Base Communications Infrastructure Equipment: Funds support base-approved and MAJCOM-validated communications requirements as identified in base communications blueprints. These requirements include flying and technical training, education, recruiting, and accession mission, command and control, as well as first responder services at all 11 AETC bases. This is a continuing requirement. In FY2021, PE 0808550F (Information Technology Services Management - Training), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.</p> <p>PE 0505550F Information Technology Services Management - AFR - P-40A Air Force Reserve Command (AFRC) Base Communications Infrastructure Equipment: Funds provide for recapitalization, and support of AFRC base communications infrastructure. AFRC is an AF MAJCOM consisting of a HQ, three Numbered Air Forces (NAFs), 45 flying wings/groups and more than 40 GSUs; Air Reserve Personnel Center (ARPC) and the Major Command Coordinating Center (MCCC). Funding supports AFR-wide programs providing base communications infrastructure consistency. Funding provides AFR-wide hardware and software purchases, thus ensuring the deployment of consistent, compatible, and interoperable technology and architecture. This is a continuing requirement.</p> <p>In accordance with Section 1815 of the FY2008 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> <p>PE 0508550F Information Technology Services Management - ANG - P-40A Air National Guard (ANG) Base Communications Infrastructure Equipment: Funding supports the operations, maintenance, and sustainment of IT components, infrastructure, and processes enabling effective operations and defense of the ANG enterprise portion of the Air Force Network (AFNet). Funds provide for IT life cycle support for 90 ANG Main Operating Bases (MOB), 153 GSUs, and the 299th Cyber Security Control (CSCS) weapon system. Funds support ANG-wide base communications infrastructure projects consistent with AF IT standards and for compatibility of the ANG enterprise with the AF and Department of Defense (DoD) centralized networks. A major component of this funding is to support the procurement and implementation of a robust Installation Notification and Warning System (INWS) that provides Giant Voice, Indoor Alerts, Telephone call/text alerts, software for computer alerts, and other alerting methods to meet DOD and Federal warning requirements for all ANG bases. This is a continuing requirement.</p> <p>In accordance with Section 1815 of the FY2008 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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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	149.845	51.087	122.254	30.717	152.971	-	-	-	-
AFNG	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	3.291	3.924	9.675	0.000	9.675	-	-	-	-
AFR	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.340	0.346	0.352	0.000	0.352	-	-	-	-
Total:	Quantity	0	0	0	0	0	-	-	-	-
Secondary Distribution	Total Obligation Authority	153.476	55.357	132.281	30.717	162.998	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Atmospheric Early Warning System				- / -	- / 0.000	- / 0.000	- / 3.994	- / -	- / 3.994
P-40a	Engineering and Installation - Air Force				- / -	- / 36.627	- / 3.020	- / -	- / -	- / -
P-40a	IT Services- AFIMSC- Operating Forces Spt				- / -	- / 5.958	- / 0.000	- / 0.000	- / -	- / 0.000
P-40a	Collateral Equipment - Tactical Air Forces				- / -	- / 0.000	- / 5.966	- / 2.216	- / -	- / 2.216
P-40a	Information Technology Services Management - Other				- / -	- / 3.200	- / 3.254	- / -	- / -	- / -
P-40a	Communications and Information Technology				- / -	- / 4.450	- / 5.439	- / 5.412	- / -	- / 5.412
P-40a	VC-25B				- / -	- / 0.000	- / 4.010	- / 0.000	- / -	- / 0.000
P-40a	MQ-9 UAV				- / -	- / 87.378	- / 7.898	- / 82.160	- / -	- / 82.160
P-40a	Information Technology Services Management - Tactical Air Forces				- / -	- / 9.535	- / 9.664	- / 0.187	- / 0.000	- / 0.187
P-40a	EIT CONNECT				- / -	- / 0.000	- / 7.934	- / 16.289	- / -	- / 16.289
P-40a	EIT END USER DEVICES				- / -	- / 0.000	- / 0.000	- / 11.996	- / 30.717	- / 42.713
P-40a	Information Technology Services Management - Mobility Air Forces				- / -	- / 0.768	- / 0.780	- / 0.000	- / -	- / 0.000
P-40a	Information Technology Services Management - AFR				- / -	- / 0.340	- / 0.346	- / 0.352	- / -	- / 0.352
P-40a	Information Technology Services Management - ANG				- / -	- / 3.291	- / 3.924	- / 9.675	- / -	- / 9.675
P-40a	Information Technology Services Management - Logistics				- / -	- / 1.647	- / 2.011	- / 0.000	- / -	- / 0.000
P-40a	Information Technology Services Management - Training				- / -	- / 0.282	- / 1.111	- / 0.000	- / -	- / 0.000
P-40	Total Gross/Weapon System Cost				- / -	- / 153.476	- / 55.357	- / 132.281	- / 30.717	- / 162.998

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

PE 0102325F Atmospheric Early Warning System - P-40A
 Atmospheric Early Working System (PE 0102325F)
 (New Start)FY21 \$3.994M

PE 0207500F IT Services- AFIMSC- Operating Forces Spt - P-40A
 No FY2021 funding requested

PE 0208535F Collateral Equipment - Tactical Air Forces - P-40A
 Collateral Equipment - Tactical Air Forces PE 0208535f/EIC - FP15:
 (New Start)

European Infrastructure Consolidation (EIC): FY20 funds will procure IT and communications equipment to fit-out the Molesworth JIAC facility, supporting 1,750 Joint Intelligence and NATO Intelligence Fusion personnel. FY21 \$2.216M

PE 0208550F Information Technology Services Management -Tactical Air Forces. FY21 \$.187M

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>PE 0308611F Communications and Information Technology - P-40A AFSPC Communications Infrastructure Equipment: FY 2021 funds ensure access to Air Force and DoD space enterprise and base-level network systems. Funding supports the space enterprise and base operations by providing required Department of the Air Force and space enterprise-wide hardware and software purchases, ensuring the deployment of consistent, compatible, and interoperable communications technology to support the space portion of the Joint Information Environment enterprise. Hardware and software purchases may include routers, switches, and other network systems to support unified capabilities and the joint enterprise. FY21 \$5.412M</p> <p>PE 0401319F VC-25B - P-40A The FY21 funding is needed to support PAR Complex military construction project outfitting requirements including: desktop hardware, servers, software, routers, handsets, data switches, network infrastructure and secure voice, data, and video systems. In addition, FY21-23 funding will support the acquisition of special support vehicles for VC-25B operations. No FY21 funding requested.</p> <p>PE 0205219F MQ-9 UAV - P-40A Funds are required for the procurement and installation of hardware and software at MQ-9 Squadron Operations Centers (SOCs) to enable mission communications and exchange of mission data necessary for the employment of Remote Split Operations for MQ-9 Reaper missions. FY21 \$82.160M</p> <p>PE 0303004F EIT CONNECT - P-40A Air Combat Command (ACC) Lead Command Base Communications Infrastructure: E&I supports enterprise network capability and life cycle replacement of common user communications systems, AF Network Defensive capabilities, as well as Installation Emergency Management (IEM) infrastructure. E&I funds support communications availability and reliability, providing consistent, compatible, and interoperable capability through advanced technology and architecture. Installations include network communications infrastructure, fiber optic and copper cabling, and associated manhole duct systems for cable projects. FY21 \$16.289M</p> <p>PE 0303005F EIT END USER DEVICES - P-40A a. Air Force District Washington (AFDW) Base Communications Network Equipment: FY 2021 funds procure wide and local area network hardware (i.e., servers, routers, hubs and network systems) at Joint Base Anacostia-Bolling, Joint Base Andrews, and Headquarters Air Force. This program invests in office automation systems and computer networks in order to procure high-quality, high-speed connections to both public and classified network, and equipment required to react to emerging and emergency mission requirements in the National Capital Region (NCR). b. Air Force Materiel Command (AFMC) Communications Infrastructure Equipment: FY 2021 funds support command wide and base approved, MAJCOM validated communications requirements. These provide base life cycle management of AFMC's classified and unclassified network server consolidation, Land Mobile Radio (LMR) systems, routers, voice and data switches, ductwork, cabling, and end building node hardware that support UC and communications infrastructure. Procurements include VoIP solutions to replace the obsolete telephone switches and communications infrastructure. c. Air Force District Washington (AFDW) Base Communications Infrastructure Equipment: FY 2021 funds procure wide and local area network at Joint Base Anacostia-Bolling, Joint Base Andrews, and Headquarters Air Force. This program invests in office automation systems and computer networks to support high-quality, high-speed connections to public and classified networks in support of National Capitol Region (NCR) mission requirements. d. Air Force Special Operations Command (AFSOC) Base Communications Infrastructure Equipment: FY 2021 funds will be used by AFSOC to recapitalize data, voice, and video equipment supporting AFSOC forces organized under three active-duty wings, one reserve wing, one National Guard wing, two overseas groups, and several direct reporting units. e. Pacific Air Forces (PACAF) Base Communications Infrastructure Equipment: FY 2021 funding supports PACAF's acquisition and installation of Unified Capabilities (UC) and communications infrastructure at remote and Geographically Separated Unit (GSU) locations. Procurements include VoIP solutions to replace the obsolete telephone switches and communications infrastructure supporting C2 for deploying squadrons at these (flex base) locations. This capability directly supports COMPACAF's flexible basing strategy for the Pacific region. f. Air Combat Command (ACC) Base Communications Infrastructure Equipment: FY 2021 funds continue life cycle support of base communications infrastructure at ACC bases and replaces outdated network voice and data equipment hardware to meet mission requirements of ACC's C2 and mission support users. g. USAFE-AFAFRICA Base Communications Infrastructure Equipment: FY 2021 funds replace USAFE's outdated Land Mobile Radio distribution systems between intrabase communication networks/nodes thereby eliminating bottlenecks in trunking systems across USAFE-AFAFRICA Main Operating Bases (MOBs) and GSUs. Base network infrastructure procurements meet network communications requirements for USAFE-AFAFRICA users at MOBS and GSUs. Additionally, FY 2021 funds procure communications infrastructure in support of the EIC and procure equipment to support the European Deterrence Initiative (EDI). EDI requires additional long haul communication support to support increased rotational presence of air, ground and sea forces throughout Europe.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 7: Organization and Base		P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>h. Air Education and Training Command (AETC) Base Communications Infrastructure Equipment: FY 2021 funds will be used to continue the process of replacing AETC legacy base LAN infrastructure originally designed to carry data only in order to comply with the increased reliability required under Assured Service LAN (ASLAN) as other services (e.g., voice, enterprise LMR) are transitioned to the LAN. FY21 \$11.996M and OCO FY21 \$30.717M</p> <p>PE 0505550F Information Technology Services Management - AFR - P-40A Air Force Reserve Command (AFRC) Base Communications Infrastructure Equipment: FY 2021 funds support data, voice, and video projects to promote compatibility with the AF "Active" component architectures. In addition to funding AFR-wide programs. Funds also acquire equipment for life cycle support of critical base-level communications infrastructure requirements. FY21 \$.352M</p> <p>PE 0508550F Information Technology Services Management - ANG - P-40A Air National Guard (ANG) Base Communications Infrastructure Equipment: FY 2021 funds continue to support installation of command purchased information technology and software to maintain a consistent, compatible, and interoperable infrastructure and architecture. This functionality ensures compatibility of ANG networks with the AF Enterprise. FY21 \$9.675M</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure **Aggregated Items Title:** Atmospheric Early Warning System

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
Atmospheric Early Warning System	A		-	-	-	-	-	0.000	-	-	0.000	-	-	3.994	-	-	-	-	-	3.994
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	0.000	-	-	3.994	-	-	-	-	-	3.994
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	0.000	-	-	3.994	-	-	-	-	-	3.994
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	3.994	-	-	-	-	-	3.994

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: Engineering and Installation - Air Force
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Engineering & Installation																				
New Item	A		-	-	-	-	-	36.627	-	-	3.020	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	36.627	-	-	3.020	-	-	-	-	-	-	-	-	
Subtotal: Engineering & Installation			-	-	-	-	-	36.627	-	-	3.020	-	-	-	-	-	-	-	-	
Total			-	-	-	-	-	36.627	-	-	3.020	-	-	-	-	-	-	-	-	

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7					P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure					Aggregated Items Title: IT Services- AFIMSC- Operating Forces Spt									

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AF Installation & Msn Spt Ctr																				
Info Tech Svcs Mgt (ITSM)	A		-	-	-	-	-	5.958	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	5.958	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: AF Installation & Msn Spt Ctr			-	-	-	-	-	5.958	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	5.958	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7 **P-1 Line Item Number / Title:** 837300 / Base Comm Infrastructure **Aggregated Items Title:** Collateral Equipment - Tactical Air Forces

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Collateral Equipment - Tactical Air Force																				
EIC-FP15	A		-	-	-	-	-	0.000	-	-	5.966	-	-	2.216	-	-	-	-	-	2.216
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	5.966		-	2.216		-	-		-	2.216
Subtotal: Collateral Equipment - Tactical Air Force			-	-	-	-	-	0.000	-	-	5.966	-	-	2.216	-	-	-	-	-	2.216
Total			-	-	-	-	-	0.000	-	-	5.966	-	-	2.216	-	-	-	-	-	2.216

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure							Aggregated Items Title: Information Technology Services Management - Other					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Information Technology Services Management - Other																				
New Item	A		-	-	-	-	-	3.200	-	-	3.254	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	3.200			3.254			-	-	-	-	-	-	-
Subtotal: Information Technology Services Management - Other			-	-	-	-	-	3.200	-	-	3.254	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	3.200	-	-	3.254	-	-	-	-	-	-	-	-	-

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure							Aggregated Items Title: Communications and Information Technology					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFSPC																				
AFSPC Communications Infrastructure Equipment	A		-	-	-	-	-	4.450	-	-	5.439	-	-	5.412	-	-	-	-	-	5.412
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	4.450	-	-	5.439	-	-	5.412	-	-	-	-	-	5.412
Subtotal: AFSPC			-	-	-	-	-	4.450	-	-	5.439	-	-	5.412	-	-	-	-	-	5.412
Total			-	-	-	-	-	4.450	-	-	5.439	-	-	5.412	-	-	-	-	-	5.412

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: VC-25B
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AFMC																				
VC-25B PAR	A		-	-	-	-	-	0.000	-	-	4.010	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	4.010	-	-	0.000	-	-	-	-	-	0.000
Subtotal: AFMC			-	-	-	-	-	0.000	-	-	4.010	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.000	-	-	4.010	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: MQ-9 UAV
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
PMA Other Government Costs	A		-	-	-	-	-	20.637	-	-	3.639	-	-	5.954	-	-	-	-	-	5.954
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	20.637	-	-	3.639	-	-	5.954	-	-	-	-	-	5.954
Equipment	A		-	-	-	-	-	24.643	-	-	4.259	-	-	25.683	-	-	-	-	-	25.683
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	24.643	-	-	4.259	-	-	25.683	-	-	-	-	-	25.683
ACC Equipment	A		-	-	-	-	-	42.098	-	-	-	-	-	50.523	-	-	-	-	-	50.523
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	42.098	-	-	-	-	-	50.523	-	-	-	-	-	50.523
Subtotal: Uncategorized			-	-	-	-	-	87.378	-	-	7.898	-	-	82.160	-	-	-	-	-	82.160
Total			-	-	-	-	-	87.378	-	-	7.898	-	-	82.160	-	-	-	-	-	82.160

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7						P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure						Aggregated Items Title: Information Technology Services Management - Tactical Air Forces							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - Tactical AF's																				
Base Communications Infrastructure Equipment	A		-	-	-	-	-	9.535	-	-	9.664	-	-	0.187	-	-	0.000	-	-	0.187
<i>Secondary Distribution</i>																				
AF				-	-		-	9.535		-	9.664		-	0.187		-	0.000		-	0.187
Subtotal: ITSM - Tactical AF's			-	-	-	-	-	9.535	-	-	9.664	-	-	0.187	-	-	0.000	-	-	0.187
Total			-	-	-	-	-	9.535	-	-	9.664	-	-	0.187	-	-	0.000	-	-	0.187

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: EIT CONNECT
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ACC E&I																				
ACC Lead Command Base Communications Infrastructure	A		-	-	-	-	-	0.000	-	-	7.934	-	-	16.289	-	-	-	-	-	16.289
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	7.934		-	16.289		-	-		-	16.289
Subtotal: ACC E&I			-	-	-	-	-	0.000	-	-	7.934	-	-	16.289	-	-	-	-	-	16.289
Total			-	-	-	-	-	0.000	-	-	7.934	-	-	16.289	-	-	-	-	-	16.289

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

Remarks:

*Lead Command responsibility for the E&I program transferred from AFSPC to ACC. In FY2021, PE 0207436F (Engineering and Installation Support AF), efforts were transferred to PE 0303004F (EIT Connect), in order to align resources under the Enterprise Information Technology portfolio.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: EIT END USER DEVICES
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM																				
AFMC Base Communications Infrastructure Equipment	A		-	-	-	-	-	0.000	-	-	0.000	-	-	11.996	-	-	30.717	-	-	42.713
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	0.000	-	-	11.996	-	-	30.717	-	-	42.713
Subtotal: ITSM			-	-	-	-	-	0.000	-	-	0.000	-	-	11.996	-	-	30.717	-	-	42.713
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	11.996	-	-	30.717	-	-	42.713

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

Remarks:

- a. In FY2021, PE 0305550F (Information Technology Services Management - Other), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.
- b. In FY2021, PE 0708550F (Information Technology Services Management - Logistics), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.
- c. In FY2021, PE 0408550F (Information Technology Services Management - Mobility Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.
- d-g. In FY2021, PE 0208550F (Information Technology Services Management - Tactical Air Forces), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.
- h. In FY2021, PE 0808550F (Information Technology Services Management - Training), efforts were transferred to PE 0303005F (EIT End Devices), in order to align resources under the Enterprise Information Technology portfolio.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure								Aggregated Items Title: Information Technology Services Management - Mobility Air Forces				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - Mobility AF's																				
AFDW Base Communications Infrastructure Equipment	A		-	-	-	-	-	0.768	-	-	0.780	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.768	-	-	0.780	-	-	0.000	-	-	-	-	-	0.000
Subtotal: ITSM - Mobility AF's			-	-	-	-	-	0.768	-	-	0.780	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.768	-	-	0.780	-	-	0.000	-	-	-	-	-	0.000

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7	P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure	Aggregated Items Title: Information Technology Services Management - AFR
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - AFR																				
AFRC Base Communications Infrastructure Equipment	A		-	-	-	-	-	0.340	-	-	0.346	-	-	0.352	-	-	-	-	-	0.352
<i>Secondary Distribution</i>																				
AFR			-	-	-	-	-	0.340	-	-	0.346	-	-	0.352	-	-	-	-	-	0.352
Subtotal: ITSM - AFR			-	-	-	-	-	0.340	-	-	0.346	-	-	0.352	-	-	-	-	-	0.352
Total			-	-	-	-	-	0.340	-	-	0.346	-	-	0.352	-	-	-	-	-	0.352

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure							Aggregated Items Title: Information Technology Services Management - ANG					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - ANG																				
ANG Base Communications Infrastructure Equipment	A		-	-	-	-	-	3.291	-	-	3.924	-	-	9.675	-	-	-	-	-	9.675
<i>Secondary Distribution</i>																				
AFNG			-	-	-	-	-	3.291	-	-	3.924	-	-	9.675	-	-	-	-	-	9.675
Subtotal: ITSM - ANG			-	-	-	-	-	3.291	-	-	3.924	-	-	9.675	-	-	-	-	-	9.675
Total			-	-	-	-	-	3.291	-	-	3.924	-	-	9.675	-	-	-	-	-	9.675

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure							Aggregated Items Title: Information Technology Services Management - Logistics					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - Logistics																				
AFMC Base Communications Infrastructure Equipment	A		-	-	-	-	-	1.647	-	-	2.011	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	1.647	-	-	2.011	-	-	0.000	-	-	-	-	-	0.000
Subtotal: ITSM - Logistics			-	-	-	-	-	1.647	-	-	2.011	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	1.647	-	-	2.011	-	-	0.000	-	-	-	-	-	0.000

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force														Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 7							P-1 Line Item Number / Title: 837300 / Base Comm Infrastructure							Aggregated Items Title: Information Technology Services Management - Training					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
ITSM - Training																				
AETC Base Communications Infrastructure Equipment	A		-	-	-	-	-	0.282	-	-	1.111	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.282	-	-	1.111	-	-	0.000	-	-	-	-	-	0.000
Subtotal: ITSM - Training			-	-	-	-	-	0.282	-	-	1.111	-	-	0.000	-	-	-	-	-	0.000
Total			-	-	-	-	-	0.282	-	-	1.111	-	-	0.000	-	-	-	-	-	0.000

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0604281F **Other Related Program Elements:** 0305114F, 0305137F

Line Item MDAP/MAIS Code: None

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	66.153	11.486	14.500	21.471	-	21.471	18.810	4.962	5.044	5.127	-	147.553
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	66.153	11.486	14.500	21.471	-	21.471	18.810	4.962	5.044	5.127	-	147.553
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	66.153	11.486	14.500	21.471	-	21.471	18.810	4.962	5.044	5.127	-	147.553

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

Initial Spares (<i>\$ in Millions</i>)	-	1.013	-	-	-	-	-	-	-	-	-	1.013
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PE 0604281F Tactical Data Networks Enterprise - P-40A

Tactical Data Links (TDL), as a subset of the broader airborne network, are used in a combat environment to exchange information such as messages, data, radar tracks, target information, platform status, imagery, and command assignments. TDLs provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. TDLs provide a jam-resistant; secure digital data transfer network capability with new and standardized waveforms and data formats allowing Line-of-Sight (LOS) and Beyond-Line- of-Sight (BLOS) intra- and inter-flight communications. TDLs increase mission effectiveness, provide positive identification of aircraft in the network, correlate on and off-board sensor data sharing, target, and threat information, and provide the data link to accomplish time critical targeting and other mission update functions. TDLs are used by all service theater Command and Control (C2) elements, weapons platforms, and sensors.

TDLs include, but are not limited to: Link 16, Link 11, Link 22, Situational Awareness Data Link (SADL), Multifunction Advanced Data Link (MADL) Variable Message Format (VMF), Integrated Broadcast Service (IBS), Intra-Flight Data Link (IFDL), Tactical Targeting Network Technology (TTNT) and Airborne Extensible Relay and Over the Horizon Network (AERONet) . TDL efforts include incorporating changes and additions to the Link-16 message standard (MIL-STD-6016E) and applicable Interface Change Proposals (ICPs), assisting with Air Force and joint interoperability certification testing with the Air Combat Command (ACC) and Joint Interoperability Test Center (JITC); future development, integration, and verification of Operational Flight Program (OFP) upgrades due to TDL integration; support of data gathering processes; studying and incorporating data link technologies to ensure effectiveness and efficiency of the Global Strike and Global Persistent Attack CONOPS.

Funds will be used to procure Tactical Data Link Planning, Analysis and Monitoring (TDL PAM) tool for various locations and applications. Full motion video effort includes equipment, fielding support, contractor support, and training. These systems will add capability to modernize CONUS/OCONUS ground based strike decisions in the hostile environment.

PE 0102412F North Warning Systems POR - P-40A Talon Archer
Parts support for Talon Archer at the North Warning System Sites

PE 0305114F Air Traffic Control and Landing Systems (ATCALs) - P-40A - Low Cost Modifications

Fixed base and deployable ATCALs low cost modifications are initiated to resolve diminishing manufacturing source (DMS) issues and minor system deficiencies/improvements identified through the ATCALs Weapon System Review-Executive Council (WSR-EC), policy TO 00-35D-54 Deficiency Reports, and Material Improvement initiatives. The implementation of these low-cost modifications decreases maintenance costs and improves system operational availability. The return on investment for these low-cost modifications will be realized immediately through decreased unscheduled depot and field level maintenance, enhanced performance, and operational safety. The operational availability of terminal navigational aids, national airspace systems, and precision approach and landing systems are at risk if low-dollar modifications are not provided to reverse unfavorable operational availability metrics.

PE 0305137F National Airspace System (NAS) - P-40A Low Cost Mods/NAS Mods

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications	P-1 Line Item Number / Title: 838010 / Comm Elect Mods
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604281F	Other Related Program Elements: 0305114F, 0305137F
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Line Item MDAP/MAIS Code: None

FY21 funding continues NAS Low Cost Modifications (NAS Mod 2 and mitigation of diminishing manufacturing sources (NAS Mod 4).

PE 1203873F BALLISTIC MISSILE DEFENSE RADARS - Cobra Dane Radar

Due to obsolescence of unsupportable mission and capital equipment and Initial spares, coupled with the lack of vendors, COBRA DANE faces a critical parts shortage. Procurement of these parts are critical to maintain operational access and sustainment of the COBRA DANE radar residing on Shemya Island,AK.

PE 1203909F Ballistic Missile Early Warning System (BMEWS) - P-40A

PE 1203909F The Ballistic Missile Early Warning System (BMEWS) is a ground based radar system with missions to support the Missile Correlation, Space Surveillance, and Missile Defense Centers. The BMEWS radars provide United States Strategic Command (USSTRATCOM) with credible Integrated Tactical Warning/Attack Assessment (ITW/AA) data on all Inter-Continental Ballistic Missiles (ICBMs) and Sea-Launched Ballistic Missiles (SLBMs) penetrating the coverage area including Launch and predicted impact (L&PI) data for attack assessment and response determination. BMEWS also supports the Space Situational Awareness (SSA) network providing near-earth satellite surveillance and tracking, reporting observational (metric), SOI on man-made satellites and maintenance of the space catalog as required by the Joint Space Operations Center, Alternate Space Operations Center, and the National Air and Space Intelligence Center mitigating the significantly increasing potential for collisions with national assets, including manned space platforms. The BMEWS shares a common baseline and mission with the PAVE Phased Array Warning System (PAVE PAWS) while deploying more array elements on its faces. The Upgraded Early Warning Radar (UEWR) sites at Thule and Fylingdales also have a Missile Defense (MD) mission supporting the Missile Defense Agency. These radars are located at Thule Air Base, Greenland; Clear Air Force Station, AK; and Royal Air Force (RAF) Fylingdales, UK. Additionally there is a site for testing (System Program Agency) located in the Centralized Integration Support Facility (CISF) at Peterson AFB, CO.

PE 0305137F National Airspace System (NAS) - P-40A Low Cost Mods/NAS Mods

NAS is an inactive ACAT I program which transitioned to the operations and support phase in FY17. NAS Modifications fund Diminishing Manufacturing Sources and Material Shortages (DMSMS) efforts to include, but are not limited to, obsolescence scans, DMS/MS studies and DMS/MS resolution and for Technical Support Services (TSS) which includes Engineering Support, Site Specific Issue Resolution, Trouble Reports (TR), Investigation Request (IR), Discrepancy Report (DR) Resolution, and the Product Support Library (PSL). FY21 funding continues NAS Low Cost Modifications (NAS Mod 2 and mitigation of diminishing manufacturing sources (NAS Mod 4).

PE 1203912F Submarine-Launched Ballistic Missile (SLBM) Radar Warning System - P-40A

PE 1203912F
The PAVE PHASED ARRAY WARNING SYSTEM (PAVE PAWS) is a ground based radar system with missions to support the Missile Correlation, Space Surveillance, and Missile Defense Centers. The PAVE PAWS radars provide United States Strategic Command (USSTRATCOM) with credible Integrated Tactical Warning/Attack Assessment (ITW/AA) data on all Sea-Launched Ballistic Missiles (SLBMs) and Inter-Continental Ballistic Missiles (ICBMs) penetrating the coverage area including Launch and predicted impact (L&PI) data for attack assessment and response determination. PAVE PAWS also supports the Space Situational Awareness (SSA) network providing near-earth satellite surveillance and tracking, reporting observational (metric), SOI on man-made satellites and maintenance of the space catalog as required by the Joint Space Operations Center, Alternate Space Operations Center, and the National Air and Space Intelligence Center mitigating the significantly increasing potential for collisions with national assets, including manned space platforms. The Upgraded Early Warning Radar (UEWR) site at Beale AFB also has a Missile Defense (MD) mission supporting the Missile Defense Agency. The PAVE PAWS shares a common baseline and mission with the Ballistic Missile Early Warning System (BMEWS) while deploying fewer array elements on its faces. These radars are located at Beale AFB, CA and Cape Cod AFS, MA. Additionally there is a site for testing (System Program Agency) located in the Centralized Integration Support Facility (CISF) at Peterson AFB, CO.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	0	0	28	0	28	-	-	-	-
	Total Obligation Authority	11.486	14.500	21.471	0.000	21.471	12.324	4.462	4.544	4.627

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

Appropriation / Budget Activity / Budget Sub Activity:
 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications
 Equip / BSA 8: Modifications

P-1 Line Item Number / Title:
 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0604281F **Other Related Program Elements:** 0305114F, 0305137F

Line Item MDAP/MAIS Code: None

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AFNG	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000	-	-	-	-
AFR	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000	-	-	-	-
Total:	Quantity	0	0	28	0	28	-	-	-	-
Secondary Distribution	Total Obligation Authority	11.486	14.500	21.471	0.000	21.471	12.324	4.462	4.544	4.627

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0604281F **Other Related Program Elements:** 0305114F, 0305137F

Line Item MDAP/MAIS Code: None

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	North Warning System (NWS)				- / -	- / 0.000	- / 0.000	- / 7.991	- / -	- / 7.991
P-40a	Air Traffic Control, Approach, and Landing System (ATCALs)				- / 54.431	- / 1.850	- / 1.858	- / 1.882	- / 0.000	- / 1.882
P-40a	National Airspace System (NAS) Plan				- / 11.722	- / 9.636	- / 5.694	- / 3.668	- / 0.000	- / 3.668
P-40a	Tactical Data Networks Enterprise				- / -	- / 0.000	- / -	- / 7.930	- / -	- / 7.930
P-40a	Tactical Data Networks Enterprise				- / 0.000	- / 0.000	- / 6.948	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 66.153	- / 11.486	- / 14.500	- / 21.471	- / -	- / 21.471

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	North Warning System (NWS)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Air Traffic Control, Approach, and Landing System (ATCALs)				- / 1.910	- / 1.945	- / 1.981	- / 2.017	- / 0.000	- / 67.874
P-40a	National Airspace System (NAS) Plan				- / 2.474	- / 2.517	- / 2.563	- / 2.610	- / 0.000	- / 40.884
P-40a	Tactical Data Networks Enterprise				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Tactical Data Networks Enterprise				- / 7.940	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 14.888
P-40	Total Gross/Weapon System Cost				- / 18.810	- / 4.962	- / 5.044	- / 5.127	- / -	- / 147.553

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 This program, Comm Elect Mods P-40A Category Talon Archer Item Antenna Parts, is a new start.
 PE 0102412F North Warning Systems POR - P-40A Talon Archer
 FY21 funding procures antenna parts for Talon Archer North Warning System Sites.
 PE 0604281F Tactical Data Networks Enterprise - P-40A
 FY21 funding required to procure Tactical Data Link Planning Analysis and Monitoring Tool.
 PE 0305114F Air Traffic Control and Landing Systems (ATCALs) - P-40A - Low Cost Modifications
 FY21 funds continue ATCALs low cost modifications as prioritized by the WSR-EC.
 PE 0305137F National Airspace System (NAS) - P-40A Low Cost Mods/NAS Mods
 FY21 funding continues NAS Low Cost Modifications (NAS Mod 2 and mitigation of diminishing manufacturing sources (NAS Mod 4).

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 8: Modifications		P-1 Line Item Number / Title: 838010 / Comm Elect Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604281F	Other Related Program Elements: 0305114F, 0305137F
Line Item MDAP/MAIS Code: None		

Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:

- (a) FY 2022 Cost Delta: 6.486 million
- (b) FY 2023 Cost Delta: 0.500 million
- (c) FY 2024 Cost Delta: 0.500 million
- (d) FY 2025 Cost Delta: 0.500 million
- (e) FY Total Cost Delta: 23.907 million

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8	P-1 Line Item Number / Title: 838010 / Comm Elect Mods	Aggregated Items Title: North Warning System (NWS)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Talon Archer																				
Antenna Parts	A		-	-	-	-	-	0.000	-	-	0.000	-	-	7.991	-	-	-	-	-	7.991
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	-	0.000	-	-	7.991	-	-	-	-	-	7.991
Subtotal: Talon Archer			-	-	-	-	-	0.000	-	-	0.000	-	-	7.991	-	-	-	-	-	7.991
Total			-	-	-	-	-	0.000	-	-	0.000	-	-	7.991	-	-	-	-	-	7.991

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

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8					P-1 Line Item Number / Title: 838010 / Comm Elect Mods										Aggregated Modification Items Title: Air Traffic Control, Approach, and Landing System (ATCALs)				

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F)			-	-	44.594	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	-		-	-		-	-		-	
ATCALs / Deployable TACAN Retrofit/ Refurbishment			-	-	3.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F)			-	-	6.037	-	-	1.850	-	-	1.858	-	-	1.882	-	-	-	-	1.882	
<i>Secondary Distribution</i>																				
AF				-	-		-	1.850		-	1.858		-	1.882		-	-		-	
Total			-	-	54.431	-	-	1.850	-	-	1.858	-	-	1.882	-	-	0.000	-	1.882	
Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.594	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-	-		-	-		-	-		-	
ATCALs / Deployable TACAN Retrofit/ Refurbishment			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.800	
P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F)			-	-	1.910	-	-	1.945	-	-	1.981	-	-	2.017	-	-	-	-	19.480	
<i>Secondary Distribution</i>																				
AF				-	1.910		-	1.945		-	1.981		-	2.017		-	-		-	
Total			-	-	1.910	-	-	1.945	-	-	1.981	-	-	2.017	-	-	0.000	-	67.874	

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

Modification Information:

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8	P-1 Line Item Number / Title: 838010 / Comm Elect Mods	Aggregated Modification Items Title: Air Traffic Control, Approach, and Landing System (ATCALs)

Item Number / Title	Models of Systems Affected	Modification Type
AN/GRN-29 Instrument Landing System / ATCALs AN/GRN-29 Instrument Landing System (PE 0305114F)	GRN-29	Capability Improvement
ATCALs / Deployable TACAN Retrofit/ Refurbishment	TRN-48	Reliability & Maintainability
P-3A Low Cost Mods / ATCALs Low Cost Mods (PE 0305114F)	ATCALs	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Modification Items Title:** National Airspace System (NAS) Plan

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
NAS Mod 1 / NAS Gen4 MOD			-	-	11.722	-	-	9.636	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF				-	-		-	9.636		-		-		-		-		-	-	
NAS Mod 2 / NAS Low Cost Mods			-	-	-	-	-	-	-	1.854	-	-	1.892	-	-	-	-	-	1.892	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		1.854		-	1.892		-		-		1.892	
NAS Mod 3 / DASR Site Control Data Interface (SCDI)			-	-	-	-	-	-	-	3.840	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		3.840		-	-		-		-		-	
NAS Mod 4 / National Airspace System (NAS) Mod 4			-	-	-	-	-	-	-	-	-	-	1.776	-	-	-	-	-	1.776	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		-	1.776		-		-		1.776	
Total			-	-	11.722	-	-	9.636	-	-	5.694	-	-	3.668	-	-	0.000	-	-	3.668
Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
NAS Mod 1 / NAS Gen4 MOD			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.358	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		-	-		-		-		-	
NAS Mod 2 / NAS Low Cost Mods			-	-	1.870	-	-	1.902	-	-	1.937	-	-	1.973	-	-	-	-	11.428	
<i>Secondary Distribution</i>																				
AF				-	1.870		-	1.902		-	1.937		-	1.973		-		-	-	
NAS Mod 3 / DASR Site Control Data Interface (SCDI)			-	-	-	-	-	-	-	-	-	-	0.637	-	-	-	-	-	4.477	
<i>Secondary Distribution</i>																				
AF				-	-		-	-		-		-	0.637		-		-		-	
NAS Mod 4 / National Airspace System (NAS) Mod 4			-	-	0.604	-	-	0.615	-	-	0.626	-	-	-	-	-	-	-	3.621	
<i>Secondary Distribution</i>																				
AF				-	0.604		-	0.615		-	0.626		-	-		-		-	-	

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Modification Items Title:** National Airspace System (NAS) Plan

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Total			-	-	2.474	-	-	2.517	-	-	2.563	-	-	2.610	-	-	0.000	-	-	40.884

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
NAS Mod 1 / NAS Gen4 MOD	NASMod-1	Capability Improvement
NAS Mod 2 / NAS Low Cost Mods	NAS	Reliability & Maintainability
NAS Mod 3 / DASR Site Control Data Interface (SCDI)	NAS	Reliability & Maintainability
NAS Mod 4 / National Airspace System (NAS) Mod 4	NAS	Reliability & Maintainability

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8 **P-1 Line Item Number / Title:** 838010 / Comm Elect Mods **Aggregated Items Title:** Tactical Data Networks Enterprise

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Tactical Data Network Enterprise PE 64281F																				
Tactical Data Link Planning Analysis and Monitoring Tool	A		-	-	-	-	-	0.000	-	-	-	0.283	28	7.930	-	-	-	0.283	28	7.930
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	-		28	7.930		-	-		28	7.930
Subtotal: Tactical Data Network Enterprise PE 64281F			-	-	-	-	-	0.000	-	-	-	-	-	7.930	-	-	-	-	-	7.930
Total			-	-	-	-	-	0.000	-	-	-	-	-	7.930	-	-	-	-	-	7.930

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

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 8					P-1 Line Item Number / Title: 838010 / Comm Elect Mods										Aggregated Modification Items Title: Tactical Data Networks Enterprise				

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TDNE / Tactical Data Networks Enterprise			-	-	-	-	-	-	-	6.948	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	6.948	-	-	-	-	-	-	-	-	-	
Total			-	-	0.000	-	-	0.000	-	-	6.948	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
TDNE / Tactical Data Networks Enterprise			-	-	7.940	-	-	-	-	-	-	-	-	-	-	-	-	-	14.888	
<i>Secondary Distribution</i>																				
AF			-	-	7.940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			-	-	7.940	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	14.888

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
TDNE / Tactical Data Networks Enterprise	na	Other

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip	P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment
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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: 0207227F, 0604706F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	73.954	69.134	49.578	0.000	49.578	141.513	164.689	80.391	81.887	-	661.146
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	73.954	69.134	49.578	0.000	49.578	141.513	164.689	80.391	81.887	-	661.146
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	73.954	69.134	49.578	0.000	49.578	141.513	164.689	80.391	81.887	-	661.146

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

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

Description:

This program provides a wide variety of base support and safety of flight items for warfighters with worldwide application.

Guardian Angel Family of Systems (GA FoS):

Guardian Angel is an Air Force non-aircraft weapon system within the overarching Battlefield Airman Modernization Program. Guardian Angel is a family of systems based on human and equipment capabilities formulated to execute Air Force Combat Search and Rescue and personnel recovery across a full spectrum of military operations. GA FoS is employed by three distinct Air Force Specialties: Pararescuemen (PJ), Survival, Evasion, Resistance, and Escape (SERE) and Combat Rescue Officer (CRO). GA FoS is comprised of nine critical mission areas: Precision Aerial Insertion, Information Management, Force Application, Visual Augmentation, Maritime Recovery, Ground Mobility, Technical Rescue, Medical and SERE. Representative items include but are not limited to parachute equipment, technical recovery equipment, information management systems (including Preservation of the Force and Family), enhanced night vision systems, support equipment vehicles and ground transportation, rescue watercraft and a Live Virtual Constructive (LVC) Training Simulator (simulator, maintenance & mobile shelter costs) to supplement, augment, and optimize current training events, independent of aircraft availability to align with strategic plans of the Next Generation LVC for training within the DoD. The enhanced night vision systems will include continued Procurement of Night Vision solutions that improve personnel recovery night visions systems with wider field of view, lower SWAP, and/or enhanced vision in at least one spectral band other than Near-IR. Procurement is required to meet mission needs until the next generation of multi-spectral NVGs are developed and available for ground crew operators. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. This includes applicable training, spares, and repairs. Starting FY17 and thereafter, all funding and tasks for BPAC 842140 Night Vision Goggles have been moved to BPAC 842990 Personal Safety and Rescue Equipment. 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. Due to rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. Funding for GA FoS is in Program Element 0207227F.

Special Tactics/Combat Control Special Warfare program funds Air Force standardized equipment within the overarching Special Warfare Modernization program for Special Tactics combat controllers, pararescue personnel, combat weather operators, and tactical air control parties to perform their Air Force Special Operations Command Mission. Funding for this effort is in program element 0408011F. Representative items include but are not limited to training and simulators, assault zone, airfield marking tools, approach landing capability, weather data collection and analysis, personnel and technical recovery equipment, visual augmentation, unmanned capabilities, aerial insertion, ground transportation and vehicular support equipment, and maritime. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. This includes applicable training, spares, and repairs to manage, execute, and deliver Special Tactics weapon system capability. 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. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip		P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0207227F, 0604706F
Line Item MDAP/MAIS Code: N/A		
<p>Modern warfare resulted in an increase in airborne combat under the cover of darkness. Night missions include ground operations, preparation of the aircraft for take-off and landings in complete darkness, lights-off air refueling, and visual identification of enemy targets hidden under the night sky. Consequently, ground personnel and aircrew require the capability to see in very low visibility conditions at night and high ambient light conditions such as full moon or heavily lighted residential areas. The use of Night Vision Goggles (NVG) is critical for combat rescue, special operations, and homeland security missions.</p> <p>A lack of night vision capability would significantly decrease combat effectiveness in night operations, risk flight safety, and increase the probability of fratricide. Aircraft such as HH-60 helicopters, HC-130s, F-16s, and special mission C-130s primarily operate in low altitude environments during covert night operations. Hence, NVGs are vital to the success of these missions, providing a dramatic increase in safety, situational awareness, and survivability during the execution of near daytime tactics, including visual formation criteria. Furthermore, the proliferation of NVG-equipped adversaries underscores the urgent need to supply ground and air forces with night vision equipment.</p> <p>Program changes in progress. This applies to PEC 0408011F.</p> <p>Human Systems Program Office Items Less than \$5M: This program saves Airmen's lives and improves aircrew performance through better aircrew flight equipment and airman combat systems. Procures safety and rescue equipment for increased protection of aircrew personnel operating manned, non-space aircraft to optimize weapon system effectiveness and capability throughout the full spectrum of military operations. In general, the purpose of the PE is to expand the combat capabilities of a weapon system an airman supports while balancing functionality, comfort, and safety. Representative items include flight helmets, oxygen breathing equipment, flame resistant/retardant and blast/ballistic protective gear, laser eye protection, personnel locator beacons, nuclear flash blindness devices, personnel parachutes, ejection seats/equipment, night vision goggles, survival radios, associated test sets, life rafts, life preservers, anti-exposure coveralls, aircrew flight ensembles, physiological monitoring devices, test sets & Time Compliance Technical Order (TCTO) Kits and other air/ground crew equipment. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.</p> <p>Ground and Aircrew Night Vision Goggles (NVG) and Binocular Night Vision Device (BNVD) with associated test sets and kits. The type of NVGs included the monocular night vision device which is a hand-held, head-mounted, helmet-mounted, or weapon-mounted night vision system that enables walking, weapon firing, short-range surveillance, map reading, vehicle maintenance, and first-aid administration during moonlight and starlight conditions. The difference types of NVGs support a vast spectrum of ground and air operations to include aircraft maintenance, civil engineering, emergency response, security, and other missions.</p> <p>Air/Ground and Aircrew NVGs and BNVDs Test Set & TCTO Kits includes portable instrument allowing a quick and accurate evaluation and adjustment of all goggle parameters. It uses states of the art technology and provides enhanced capabilities to the user are suitable for field operational checks and depot level NVG maintenance providing accurate checks for NVG resolution, gain, power drain, and binocular goggle collimation, image quality, and image distortion. All NVGs require operational checkout.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), capabilities under this line item are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and military support to civil authorities. Projected allocations for reserve component requirements are subject to total force demand priorities.</p> <p>Funding for this exhibit contained in PEs 0207227F, 0207433F, 0408011F, 0503113F and 0702833F.</p> <p>Projected allocations for component requirements are subject to total force demands and priorities. Funds may be used to address associated program management activities, emerging requirements, and short-notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues.&lt;/span></p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip					P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0207227F, 0604706F				
Line Item MDAP/MAIS Code: N/A										

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	355	4,766	4,943	0	4,943	-	-	-	-
	Total Obligation Authority	73.806	68.984	49.391	0.000	49.391	-	-	-	-
AFNG	Quantity	10	10	12	0	12	-	-	-	-
	Total Obligation Authority	0.099	0.100	0.132	0.000	0.132	-	-	-	-
AFR	Quantity	5	5	5	0	5	-	-	-	-
	Total Obligation Authority	0.049	0.050	0.055	0.000	0.055	-	-	-	-
Total:	Quantity	370	4,781	4,960	0	4,960	-	-	-	-
Secondary Distribution	Total Obligation Authority	73.954	69.134	49.578	0.000	49.578	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 2: Personal Safety & Rescue Equip

P-1 Line Item Number / Title:
842990 / Personal Safety and Rescue Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0207227F, 0604706F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Guardian Angel		A		- / -	- / 21.677	- / 22.295	- / 22.669	- / -	- / 22.669
P-40a	Items Less Than \$5 Million				- / -	- / 52.277	- / 46.839	- / 26.909	- / -	- / 26.909
P-40	Total Gross/Weapon System Cost				- / -	- / 73.954	- / 69.134	- / 49.578	- / 0.000	- / 49.578

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
FY21 procurement dollars procure aircrew flight equipment, life support systems, ground crew equipment, and Guardian Angel equipment.

Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

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Exhibit P-5, Cost Analysis: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2	P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment	Item Number / Title [DODIC]: Guardian Angel

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	21.677	22.295	22.669	-	22.669
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	21.677	22.295	22.669	-	22.669
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	21.677	22.295	22.669	-	22.669

(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)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Guardian Angel Cost																		
Recurring Cost																		
Aerial Insertion Equipment	-	-	-	0.018	400	7.200	0.015	771	11.565	0.015	785	11.770	-	-	-	0.015	785	11.770
Technical Recovery Equipment	-	-	-	0.072	22	1.584	0.072	22	1.584	0.079	20	1.580	-	-	-	0.079	20	1.580
Medical Equipment	-	-	-	0.025	1	0.025	0.025	1	0.025	0.020	1	0.020	-	-	-	0.020	1	0.020
Maritime Rescue Equipment	-	-	-	0.002	180	0.360	0.025	1	0.025	0.026	1	0.026	-	-	-	0.026	1	0.026
Information Management Equipment	-	-	-	0.030	135	4.050	0.002	750	1.500	0.002	775	1.550	-	-	-	0.002	775	1.550
SERE	-	-	-	0.025	1	0.025	0.025	1	0.025	0.020	1	0.020	-	-	-	0.020	1	0.020
Guardian Angel Enhanced Night Vision Systems	-	-	-	0.004	1,680	6.720	0.018	278	5.004	0.018	283	5.090	-	-	-	0.018	283	5.090
PMA Contractor Services	-	-	-	1.713	1	1.713	2.567	1	2.567	2.613	1	2.613	-	-	-	2.613	1	2.613
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	21.677	-	-	22.295	-	-	22.669	-	-	-	-	-	22.669
<i>Subtotal: Hardware - Guardian Angel Cost</i>	-	-	-	-	-	21.677	-	-	22.295	-	-	22.669	-	-	-	-	-	22.669
Gross/Weapon System Cost	-	-	-	-	-	21.677	-	-	22.295	-	-	22.669	-	-	-	-	-	22.669

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2	P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment	Item Number / Title [DODIC]: Guardian Angel
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AF	Quantity	-	-	-	-	-
	Total Obligation Authority	21.677	22.295	22.669	-	22.669
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	21.677	22.295	22.669	-	22.669

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2						P-1 Line Item Number / Title: 842990 / Personal Safety and Rescue Equipment						Aggregated Items Title: Items Less Than \$5 Million								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Special Tactics/Combat Control Equipment																				
Special Tactics / Combat Control Equipment	A		-	-	-	-	-	18.804	-	-	6.299	-	-	2.502	-	-	-	-	-	2.502
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	18.804	-	-	6.299	-	-	2.502	-	-	-	-	-	2.502
Subtotal: Special Tactics/Combat Control Equipment			-	-	-	-	-	18.804	-	-	6.299	-	-	2.502	-	-	-	-	-	2.502
Safety/Rescue/Aircrew Flight Equipment																				
PMA (Life Support) Other Government Cost/A&AS Support	A		-	-	-	-	-	0.787	-	-	1.050	-	-	1.010	-	-	-	-	-	1.010
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.787	-	-	1.050	-	-	1.010	-	-	-	-	-	1.010
Life Support Equipment	A		-	-	-	-	-	1.213	-	-	1.308	-	-	2.168	-	-	-	-	-	2.168
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	1.213	-	-	1.308	-	-	2.168	-	-	-	-	-	2.168
Aircrew Flight Equipment	A		-	-	-	-	-	1.415	-	-	0.746	-	-	2.156	-	-	-	-	-	2.156
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	1.415	-	-	0.746	-	-	2.156	-	-	-	-	-	2.156
Aircrew Laser Eye Protection (ALEP)	A		-	-	-	-	-	0.000	0.001	4,600	4,600	0.001	4,900	4,900	-	-	-	0.001	4,900	4,900
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.000	-	4,600	4,600	-	4,900	4,900	-	-	-	-	4,900	4,900
Personnel Locator Beacon	A		-	-	-	-	-	0.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.400	-	-	-	-	-	-	-	-	-	-	-	-
Night Vision Goggle Enduring Capability	A		-	-	-	-	-	9.600	-	-	19.200	-	-	12.100	-	-	-	-	-	12.100
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	9.600	-	-	19.200	-	-	12.100	-	-	-	-	-	12.100
Integrated Aircrew Ensemble	A		-	-	-	0.061	320	19.520	0.061	131	7.991	0.063	5	0.315	-	-	-	0.063	5	0.315
<i>Secondary Distribution</i>																				
AF			-	-	-	-	320	19.520	-	131	7.991	-	5	0.315	-	-	-	-	5	0.315
Ejection Seat Safety/ Sustainability Improvement Program	A		-	-	-	-	-	0.000	-	-	5.100	-	-	1.100	-	-	-	-	-	1.100

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 2 **P-1 Line Item Number / Title:** 842990 / Personal Safety and Rescue Equipment **Aggregated Items Title:** Items Less Than \$5 Million

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	5.100		-	1.100		-	-		-	1.100
Next Generation Ejection Seat	A		-	-	-		-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	0.000		-	0.000		-	-		-	0.000
Air Force Reserve Equipment	A		-	-	0.000		-	-		-	-		-	-		-	-		-	-
Groundcrew Night Vision Goggles	A		-	-	0.000		-	-		-	-		-	-		-	-		-	-
Fusion Goggle Enhanced	A		-	-	0.000		-	-		-	-		-	-		-	-		-	-
Aircrew Night Vision Goggles	A		-	-	-	0.010	50	0.493	0.010	50	0.500	0.011	55	0.605				0.011	55	0.605
<i>Secondary Distribution</i>																				
AF				-	-		35	0.345		35	0.350		38	0.418		-	-		38	0.418
AFNG				-	-		10	0.099		10	0.100		12	0.132		-	-		12	0.132
AFR				-	-		5	0.049		5	0.050		5	0.055		-	-		5	0.055
Test Set, TCTO Kit (ANV-126A-UGF)	A		-	-	0.000		-	-		-	-		-	-		-	-		-	-
Groundcrew Goggle (AN/PVS 31A)	A		-	-	-		-	0.025		-	0.025		-	0.028		-	-		-	0.028
<i>Secondary Distribution</i>																				
AF				-	-		-	0.025		-	0.025		-	0.028		-	-		-	0.028
PMA (NVG) Other Government Cost	A		-	-	-		-	0.020		-	0.020		-	0.025		-	-		-	0.025
<i>Secondary Distribution</i>																				
AF				-	-		-	0.020		-	0.020		-	0.025		-	-		-	0.025
Subtotal: Safety/Rescue/Aircrew Flight Equipment			-	-	-		-	33.473		-	40.540		-	24.407		-	-		-	24.407
Total			-	-	-		-	52.277		-	46.839		-	26.909		-	-		-	26.909

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

Remarks:

Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq	P-1 Line Item Number / Title: 843040 / Power Conditioning Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	11.000	11.454	-	11.454	11.683	11.908	12.142	16.774	-	74.961
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	11.000	11.454	-	11.454	11.683	11.908	12.142	16.774	-	74.961
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	11.000	11.454	-	11.454	11.683	11.908	12.142	16.774	-	74.961

(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:

Description:
 Power Conditioning & Continuation Interfacing Equipment (PCCIE):

The PCCIE program Office procures, replaces and modernizes uninterruptible power supply (UPS) systems to meet Air Force requirements. The Uninterruptible Power Supply (UPS) systems protect sensitive electronic equipment/systems such as command and control centers, intelligence missions, radars, etc. Many of these systems have exceeded the life expectancy of 12-15 years. PCCIE program is structured into small projects (from 3 - 125 kilovolt amps (kva)) and large projects (greater than 125 kva) and includes associated ancillary equipment.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq **P-1 Line Item Number / Title:** 843040 / Power Conditioning Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Power Conditioning Equipment				- / -	- / 0.000	- / 11.000	- / 11.454	- / -	- / 11.454
P-40	Total Gross/Weapon System Cost				- / -	- / 0.000	- / 11.000	- / 11.454	- / -	- / 11.454

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

Justification:
Power Conditioning & Continuation Interfacing Equipment (PCCIE):

PCCIE requirements transferred from 845010 to 843040 beginning for FY20.

PE 27510F - FY 20 funds procure:

The new systems collectively satisfy critical user requirements and will:

1. Reduce overall footprint and weight by 50-60%.
2. Reduce operating and sustainment costs by 30%-50%.
3. Reduce acquisition costs as it applies to installation since many newer systems consist of more internal pre-wiring.
4. Lower parts count dramatically improves reliability by reducing the potential points of failure within the system.
5. Produce greater energy savings and higher operating efficiency in all configurations, typically between 92% and 93.5%; with all types of loads.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 3 **P-1 Line Item Number / Title:** 843040 / Power Conditioning Equipment **Aggregated Items Title:** Power Conditioning Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Equipment																				
Power Conditioning Equipment	A		-	-	-	-	-	0.000	-	-	11.000	-	-	11.454	-	-	-	-	-	11.454
Subtotal: Equipment			-	-	-	-	-	0.000	-	-	11.000	-	-	11.454	-	-	-	-	-	11.454
Total			-	-	-	-	-	0.000	-	-	11.000	-	-	11.454	-	-	-	-	-	11.454

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq	P-1 Line Item Number / Title: 843050 / Mechanized Material Handling Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	85.778	11.901	12.110	-	12.110	8.688	18.751	14.994	18.367	-	170.589
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	85.778	11.901	12.110	-	12.110	8.688	18.751	14.994	18.367	-	170.589
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	85.778	11.901	12.110	-	12.110	8.688	18.751	14.994	18.367	-	170.589

(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 Mechanized Materials Handling Equipment (MMHE) line provides funding for Mechanized Materials Handling Systems (MMHS) and Storage Aids Systems (SAS).

MMHS and SAS equipment provides bases worldwide with static and automated equipment to efficiently store, receive, and ship materiel. MMHS and SAS equipment involves the design and acquisition of mechanized and non-mechanized materials handling systems to modernize and enhance supply operations, aircraft maintenance, and air transportation.

Most MMHE is one of the following equipment types:

- Material Storage and Distribution Systems which are mechanized systems to receive, store, and ship material in a warehouse or aircraft hangar.
- Aerial Port Equipment for air transportation which includes heavy duty freight handling 463L pallet conveyors, pallet buildup/breakdown lift conveyor stations, cargo staging racks, and overhead bridge cranes for air freight terminal systems; roller conveyors and overhead cranes for aerial delivery systems; and inbound and outbound baggage conveyors and passenger boarding bridges for air passenger terminals.
- External Aircraft Fuel Tank Storage Systems which are used to store and access external aircraft fuel tanks.
- Storage Aids Systems which consist of non-mechanized equipment including racks, shelving, modular cabinets, mezzanines and mobile aisle systems.

Adequately equipped facilities are essential to the storage and handling of weapon system components and for rapid processing of personnel, freight, and baggage. Proper MMHE reduces pipeline time, reduces damage to weapon system components during handling and storage, and enhances personnel safety. MMHE provides enhanced Air Force capability to respond to crises and threats whenever they occur in the world.

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 0207510F, 0207597F, 0502834F, and 0502844F.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF Quantity	33	26	24	0	24	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq	P-1 Line Item Number / Title: 843050 / Mechanized Material Handling Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
	Total Obligation Authority	84.378	9.461	9.348	0.000	9.348	-	-	-	-
AFNG	Quantity	4	3	4	0	4	-	-	-	-
	Total Obligation Authority	1.400	1.190	1.075	0.000	1.075	-	-	-	-
AFR	Quantity	0	2	3	0	3	-	-	-	-
	Total Obligation Authority	0.000	1.250	1.700	0.000	1.700	-	-	-	-
Total:	Quantity	37	31	31	0	31	-	-	-	-
Secondary Distribution	Total Obligation Authority	85.778	11.901	12.123	0.000	12.123	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 3: Depot Plant+Mtrls Handling Eq **P-1 Line Item Number / Title:** 843050 / Mechanized Material Handling Equip

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Mechanized Material Handling Equip				- / -	- / 85.778	- / 11.901	- / 12.123	- / -	- / 12.123
P-40	Total Gross/Weapon System Cost				- / -	- / 85.778	- / 11.901	- / 12.110	- / -	- / 12.110

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement funds for MMHS/SAS equipment increases the productivity of Air Force operations, enhances management control of assets, reduces multiple handling of logistics materiel by consolidating assets, enhances safety, reduces losses due to damage of materiel during storage and transport, and reduces congestion and delays in the receiving, storage and issue operations in supply, base level aircraft maintenance, and transportation facilities. Aerial port MMHE is vital to maintain and enhance rapid deployment and sustainment capabilities.

FY21 MMHE is to be purchased in the following quantities: 6 material storage and distribution systems, 19 storage aid systems, and 6 aerial port equipment systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 3 **P-1 Line Item Number / Title:** 843050 / Mechanized Material Handling Equip **Aggregated Items Title:** Mechanized Material Handling Equip

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
MECHANIZED MATERIALS HANDLING EQUIPMENT																				
MATERIAL STORAGE AND DISTRIBUTION SYSTEMS	A		-	-	-	0.436	14	6.098	0.480	13	6.237	0.450	6	2.700	-	-	-	0.450	6	2.700
<i>Secondary Distribution</i>																				
AF			-	-	-		13	5.598		10	4.397		3	1.125		-	-		3	1.125
AFNG			-	-	-		1	0.500		2	0.940		2	0.775		-	-		2	0.775
AFR			-	-	-		-	-		1	0.900		1	0.800		-	-		1	0.800
STORAGE AIDS SYSTEMS	A		-	-	-	0.235	16	3.756	0.292	16	4.664	0.257	19	4.883	-	-	-	0.257	19	4.883
<i>Secondary Distribution</i>																				
AF			-	-	-		14	3.156		14	4.064		17	4.583		-	-		17	4.583
AFNG			-	-	-		2	0.600		1	0.250		2	0.300		-	-		2	0.300
AFR			-	-	-		-	-		1	0.350		-	-		-	-		-	-
AERIAL PORT EQUIPMENT	A		-	-	-	6.222	6	37.334	0.500	2	1.000	0.757	6	4.540	-	-	-	0.757	6	4.540
<i>Secondary Distribution</i>																				
AF			-	-	-		5	37.034		2	1.000		4	3.640		-	-		4	3.640
AFNG			-	-	-		1	0.300		-	-		-	-		-	-		-	-
AFR			-	-	-		-	-		-	-		2	0.900		-	-		2	0.900
MATERIALS HANDLING EQUIPMENT FOR VC-25B MULTI-BAY HANGAR COMPLEX	A		-	-	-	38.590	1	38.590	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-		1	38.590		-	-		-	-		-	-		-	-
EXTERNAL AIRCRAFT WING TANK STORAGE SYSTEM	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NUCLEAR WEAPONS SUSTAINMENT	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: MECHANIZED MATERIALS HANDLING EQUIPMENT			-	-	-	-	-	85.778	-	-	11.901	-	-	12.123	-	-	-	-	-	12.123
Total			-	-	-	-	-	85.778	-	-	11.901	-	-	12.123	-	-	-	-	-	12.123

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845010 / Base Procured Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	46.162	48.463	21.142	0.000	21.142	19.090	11.452	10.780	10.973	-	168.062
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	46.162	48.463	21.142	0.000	21.142	19.090	11.452	10.780	10.973	-	168.062
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	46.162	48.463	21.142	0.000	21.142	19.090	11.452	10.780	10.973	-	168.062

(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:

Base Procured Equipment:

Organizations throughout the Air Force acquire authorized investment equipment from the General Services Administration, Defense Logistics Agency, and commercial sources when these items exceed \$250,000 in cost or are unavailable through Air Force central procurement. Examples of equipment in this P-1 line typically include equipment and/or specialized tools for road and ground maintenance; vehicle maintenance; vehicle corrosion control; civil engineering maintenance; electrical and carpentry shops; specialized laboratories; kitchen and dining facilities; printing plants; microfilm, graphics support facilities; training ranges; uninterruptible power supply systems, physiological trainers to include, but are not limited to Barney Chairs, Altitude Chambers, Spatial Disorientation Trainers, Hypoxia Familiarization Trainers and Part Task Trainers, Reduced Oxygen Breathing Devices, Terrain Boards, Parachuting Trainers, Aircrew Exercise Equipment.

Funding for this exhibit contained in PEs 0101213F, 0202834F, 0207142F, 0207588F, 0208007F, 0208015F, 0305207F, 0402834F, 0502834F, 0502844F, 0702834F, 0804701F, 0804731F, 0804752F.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	1	1	0	0	-	-	-	-
	Total Obligation Authority	45.197	48.463	21.142	0.000	-	-	-	-
AFNG	Quantity	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.860	0.000	0.000	0.000	-	-	-	-
AFR	Quantity	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.105	0.000	0.000	0.000	-	-	-	-
Total: Secondary Distribution	Quantity	1	1	0	0	-	-	-	-
	Total Obligation Authority	46.162	48.463	21.142	0.000	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment

P-1 Line Item Number / Title:
845010 / Base Procured Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Base Procured Equipment				- / -	- / 46.162	- / 48.463	- / 21.142	- / -	- / 21.142
P-40	Total Gross/Weapon System Cost				- / -	- / 46.162	- / 48.463	- / 21.142	- / 0.000	- / 21.142

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

This program, Category Uncategorized Item AIR COMBAT COMMAND, is a new start.
This program, Category Uncategorized Item GLOBAL STRIKE COMMAND, is a new start.

Base Procured Equipment:

Air Force Global Strike FY21 funds are to purchase Front End Loaders (FEL) for snow removal at Minot MAFs and to purchase replacement UPS units for aging UPS supporting ICBM ops.

PE 27142F - \$1.406M FY21 funds provide for procurement of a Deployable Debriefing Facility (DDF) which is comprised of a Lightning Modular Extendable Rigid Wall Shelter, mobile generators, Improved Environmental Control Units and ancillary equipment which can be deployed worldwide to support F-35 aircraft deployments.

PE 28015F - \$2.497M FY21 funds provide for the procurement of two engines for a missile retriever boat at Tyndall AFB. The engines have been in service over 24 years and the annual O&M cost is increasing \$500K per year because of increased labor to maintain the current engines. The missile retriever fleet will be unable to continue supporting retrieval of Air Force Subscale targets from the Gulf of Mexico, which creates a potential risk to them washing up on public beaches.

PE 35207F - \$0.499M - FY21 funds to procure equipment and/or specialized tools in direct support to the RC-135 V/W RIVET JOINT, RC-135S COBRA BALL, and the RC-135U COMBAT SENT.

Detailed information on the Tactical Deception program remains classified and will be provided on a need-to-know basis. For further information, please contact AF/A3TY, Mr. Phillip "Brad Snyder at (703) 697-7987. This is a new start.

PE 84701F (\$300K) - FY21 funds to procure sun shades for the T-7A beddown at Randolph Air Force Base. These aircraft shelters will provide adverse weather (lightning, hail) protection for the aircraft and crew on the parking ramp. This is a new start.

PE 84752F - \$0.698M
FY21 funding supports AFIT Lab Equipment procurement for AFIT's accredited graduate engineering programs (to include graduate student thesis / dissertations research, and USAF/DoD research needs). Equipment requirements includes (both new / replacement): Satellite Communication Ground Stations, Cube Satellite Flight Hardware, Space Thruster Measurement System, UHF High Frequency Stages, Time Resolved Particle Image Velocimetry System, Digiscan CL3 System for the AFIT clean room, Space Chromotomography Equipment, Space Electronics Laboratory, Laser Steering Mirror System, CTE Phantom Camera, Low Temp Flow System for EPR, Microwave Cavity B-field Sensor, Sample Load Lock System, Point Probe with ITO Reference Sample, Micro Thermal Imaging System, Circuit Failure Analysis Digital Microscope System, Pioneer Power-Bot AGV Robot, GPS Receivers, IMU and accessories, Dual-Output Programmable Power Supplies, and Scanning Electron Microscope.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845010 / Base Procured Equipment **Aggregated Items Title:** Base Procured Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BASE PROCURED EQUIPMENT	A		-	-	-	28.800	1	28.800	24.500	1	24.500	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-		1	28.800		1	24.500		-	-		-	-	-	-	
TACTICAL DECEPTION	A		-	-	-	-	-	-	-	-	2.978	-	-	7.930	-	-	-	-	-	7.930
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	2.978	-	-	7.930	-	-	-	-	-	7.930
AIR EDUCATION & TRAINING CMD	A		-	-	-	-	-	7.555	-	-	8.985	-	-	6.063	-	-	-	-	-	6.063
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	7.555	-	-	8.985	-	-	6.063	-	-	-	-	-	6.063
AIR COMBAT COMMAND	A		-	-	-	-	-	2.436	-	-	-	-	-	4.402	-	-	-	-	-	4.402
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	2.436	-	-	-	-	-	4.402	-	-	-	-	-	4.402
GLOBAL STRIKE COMMAND	A		-	-	-	-	-	-	-	-	-	-	-	2.747	-	-	-	-	-	2.747
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	-	-	-	2.747	-	-	-	-	-	2.747
US AIR FORCES EUROPE	A		-	-	-	-	-	0.558	-	-	12.000	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.558	-	-	12.000	-	-	0.000	-	-	-	-	-	0.000
PCCIE	A		-	-	-	-	-	5.758	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	5.758	-	-	-	-	-	-	-	-	-	-	-	-
PCCIE PMA	A		-	-	-	-	-	0.090	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.090	-	-	-	-	-	-	-	-	-	-	-	-
PCCIE ANG/RES	A		-	-	-	-	-	0.965	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AFNG			-	-	-	-	-	0.860	-	-	-	-	-	-	-	-	-	-	-	-
AFR			-	-	-	-	-	0.105	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	46.162	-	-	48.463	-	-	21.142	-	-	-	-	-	21.142
Total			-	-	-	-	-	46.162	-	-	48.463	-	-	21.142	-	-	-	-	-	21.142

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

Remarks:

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5	P-1 Line Item Number / Title: 845010 / Base Procured Equipment	Aggregated Items Title: Base Procured Equipment
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1) PCCIE PMA - FY18 funding will support Program Office Management efforts including computer support, travel, A&AS and cost estimating/analysis services

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845100 / Engineering and EOD Equipment
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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: 0205671F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	136.135	34.124	7.700	13.172	20.872	89.629	183.841	204.152	199.345	-	868.098
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	136.135	34.124	7.700	13.172	20.872	89.629	183.841	204.152	199.345	-	868.098
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	136.135	34.124	7.700	13.172	20.872	89.629	183.841	204.152	199.345	-	868.098

(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:

FY21 Baseline Funding \$4.703M EOD (Explosive Ordnance Disposal Forces): 0204424F Program Elements Codes (PECs) associated with P-1 Line. The funding supports Explosive Ordnance Disposal (EOD) team's equipment requirements in countering explosive threats in garrison and deployed locations.

FY21 Baseline Funding of \$2.997M Nuclear/Chemical/Biological Defense: 0207593F Program Element Code (PEC) associated with P-1 Line. Funding provided to purchase Radiological Detection System (RDS) for Emergency Management, and AFRAT.

FY21 OCO European Defense Initiative funding \$12.41M (RED HORSE Vehicles): 0207430F Program Element Code (PEC) associated with P-1 Line has no funds. The funds loaded into 0207430F was in error and should have been loaded in EOD PEC 0204424. This funding primarily purchases large and medium-sized robots used to interrogate and defeat Improvised Explosive Devices (IEDs) in garrison and downrange.

FY21 OCO Funding \$0.762M Tactical Communications Package 0208028F Program Element Code associated with P-1 line. Funding supports partial procurement of a tactical communications package supporting USCENTCOM training and operations to replace legacy communications systems that are antiquated and no longer sustainable.

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment

P-1 Line Item Number / Title:
845100 / Engineering and EOD Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205671F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Engineering and EOD Equipment				- / -	- / 136.135	- / 34.124	- / 7.700	- / 13.172	- / 20.872
P-40	Total Gross/Weapon System Cost				- / -	- / 136.135	- / 34.124	- / 7.700	- / 13.172	- / 20.872

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 Baseline funding of \$4.703M in PEC 0204424F will procure Explosive Ordnance Disposal (EOD) support in the following quantities: \$1.393M procures render safe tools designed to remotely mitigate unexploded explosive ordnance and associated EOD equipment; \$3.361M purchases EOD Next Generation X-Ray Generators required to interrogate and counter improvised explosive devices.

FY21 Baseline Funding of \$2.997M Nuclear/Chemical/Biological Defense: 0207593F Program Element Code (PEC) associated with P-1 Line. Funding provided to purchase Radiological Detection Systems (RDS) and Radio-Isotope Identification Devices (RIID) for Emergency Management, and AFRAT.

FY21 OCO European Defense Initiative funding of \$12.41M in PEC 0207430F for RED HORSE procurement was loaded in error and should have been loaded in EOD PEC 0204424. This primarily funds \$12.157M for large and medium-sized robotic platforms used in interrogate and defeat improvised explosive devices, both garrison and in an expeditionary environment. \$253K funds the remainder of the render safe tools designed to remotely mitigate unexploded explosive ordnance

FY21 OCO Funding \$0.762M in PEC 0208028F will procure portions of a Tactical Communications Package to replace legacy and no longer sustainable equipment at contingency training locations in the following quantities: \$244.5K procures 30 each Harris Falcon III Radios with COMSEC; \$517.5K procures 2 each Harris AN/PRC-117G TOC Systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845100 / Engineering and EOD Equipment **Aggregated Items Title:** Engineering and EOD Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
CVRJ CREW Refurbishment	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCREW Dismounted Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCREW Mounted Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCREW Fixed Site Systems	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCREW Vehicle Integration Kits	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CREW Universal Test Sets	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRS (EOD portable X-RAY)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Containment Vessel	A		-	-	-	-	-	-	0.250	11	2.750	-	-	-	-	-	-	-	-	-
Base Support Emergency Response Transport	A		-	-	-	0.300	5	1.500	-	-	-	-	-	-	-	-	-	-	-	-
Fuze Disassembly System, Explosive Ordnance Disposal	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Light Tactical Trailers	A		-	-	-	0.023	24	0.540	-	-	-	-	-	-	-	-	-	-	-	-
EOD-M Program - Ordnance Locator	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EOD Next Gen X-Rays	A		-	-	-	-	-	-	-	-	-	0.010	331	3.310	-	-	-	0.010	331	3.310
EOD Radiological Detection Systems (RDS)	A		-	-	-	-	-	-	0.014	215	3.018	-	-	-	-	-	-	-	-	-
EOD-M Diarming Toolsets (Safe Tool)	A		-	-	-	0.013	16	0.213	-	-	-	0.011	126	1.393	0.011	23	0.253	0.011	149	1.646
EOD Robotics	A		-	-	-	0.278	36	10.000	0.275	39	10.735	-	-	-	0.118	34	4.012	0.118	34	4.012
EOD-L Robotics	A		-	-	-	-	-	-	-	-	-	-	-	-	0.407	20	8.145	0.407	20	8.145
EOD-M Mini Remote Firing Device	A		-	-	-	0.035	122	4.270	0.030	24	0.715	-	-	-	-	-	-	-	-	-
Rapid Airfield Damage Assessment Systems (Spiral 1)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RECOVERY REPAIR KIT (Training/Small Sized)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845100 / Engineering and EOD Equipment **Aggregated Items Title:** Engineering and EOD Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
CBRN Radiological Detection Systems (RDS)	A		-	-	-	-	-	-	-	-	0.012	250	2.997	-	-	-	0.012	250	2.997	
RECOVERY REPAIR KIT - R1 (Medium Sized Kit)	A		-	-	-	2.407	1	2.407	2.154	1	2.154	-	-	-	-	-	-	-	-	
RECOVERY REPAIR KIT - R2 (Large Size Kit)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RECOVERY REPAIR KIT - R3 (Very Large Size Kit)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RADBO Equipment, Integration, & Spares Kits	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Support Agadez Infrastructure - IT Service Mgmt Services	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tactical Communication Packages (Harris Equipment)	A		-	-	-	-	-	-	-	-	-	-	-	0.024	32	0.762	0.024	32	0.762	
ROWPU, 1500gph	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RED HORSE EDI - Equipment & Vehicles	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LAMS-V	A		-	-	-	-	-	36.412	-	-	-	-	-	-	-	-	-	-	-	
EALS Kit	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ESAP Type I Shelters	A		-	-	-	3.000	5	15.000	3.000	4	12.000	-	-	-	-	-	-	-	-	
ESAP Type II Shelters	A		-	-	-	1.950	5	9.750	-	-	0.000	-	-	-	-	-	-	-	-	
ESAP Shelter Support	A		-	-	-	2.543	1	2.543	2.752	1	2.752	-	-	-	-	-	-	-	-	
CROWS Containerized Weapons Station	A		-	-	-	0.825	40	33.018	-	-	-	-	-	-	-	-	-	-	-	
CROWS Mobilized Platform	A		-	-	-	0.418	49	20.482	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Uncategorized			-	-	-	-	-	136.135	-	-	34.124	-	-	7.700	-	-	13.172	-	-	20.872
Total			-	-	-	-	-	136.135	-	-	34.124	-	-	7.700	-	-	13.172	-	-	20.872

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845420 / Mobility Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	87.735	52.974	18.266	33.694	51.960	49.245	44.449	77.264	84.739	-	448.366
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	87.735	52.974	18.266	33.694	51.960	49.245	44.449	77.264	84.739	-	448.366
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	87.735	52.974	18.266	33.694	51.960	49.245	44.449	77.264	84.739	-	448.366

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

Description:

This program funds procurement of Basic Expeditionary Airfield Resources (BEAR). It includes, but is not limited to, equipment to support the bed down of deployed forces (personnel, aircraft and support equipment) at austere and semi-austere locations. BEAR assets are a critical Agile Combat Support enabler for the Expeditionary Air Force. Prepositioned War Reserve Capabilities (PWRCs) (ashore and afloat) place military unit type equipment and supplies at or near the point of planned use to reduce reaction time and ensure timely support of a specific force during the initial phases of an operation. These assets provide combatant commanders with initial capabilities and materiel until establishment of a mature and sustained Strategic/Theater Distribution Network (TDP). (CJSCI 4310.01D)

BEAR is one of five FORCE Generation Sets (FGS) and is composed of multiple air base capability packages to include: feeding, hygiene, water production, power production, airfield lighting, shelters, aircraft arresting systems, and environmental support equipment. FGS-BEAR provides personnel, infrastructure, and flight line support at forward operating sites (Establish the Base, Operate the Base) The program provides funding to procure new and replacement equipment items, and multi-media packages required to support BEAR training facilities at Silver Flag Sites, Regional Training Sites, Technical Schools, Technical Certification Centers, Services Combat Center Training, 635MMG, and Eagle Flag. Costs include inventory reconstitution, spares and consumables, repairs, and procurement of new equipment for upgrades or full UTC's replacement. This program serves a critical role in support of the Combatant Commanders (COCOM) requirements to support 5 Major OPLANS, and ensures the objectives of the Asian Pacific Stability and European Defense Initiatives can be executed.

The AF continues to modernize major BEAR components to replace obsolete and inefficient items (e.g., Power Generation, Hygiene, Refrigeration, EALS, MAAS, Shelters, and Feeding):

Force Module Water System: Water System takes non-potable water and converts it into potable water. The system is modular and scalable in design and consists of Source Run, Water Production, Reverse Osmosis Water Purification Unit (ROWPU), Initial, Follow-on, and Industrial Operations, Flight line Extension, freeze protection, grey water recovery, pumping, piping, and storage equipment; applicable fittings; and other components such as fluid control valves.

Power System: Consists of prime and secondary power equipment which provides the capability to generate and distribute power to billeting, feeding, flight line and industrial operations at forward deployed sites. The primary power source for BEAR bed down locations is the BEAR Power Unit (BPU). The BPU is an 800 kilowatt (kW) Tier II compliant diesel generator. The power from the BPU is distributed through buried high voltage cabling and stepped down to facility power through the Secondary Distribution Center (SDC). The SDC is a 150 kilovolt-ampere (KVA) transformer capable of supporting twelve (12) billeting shelters via the Primary Distribution Panels (PDP).

Expeditionary Airfield Lighting System (EALS)(Legacy): Light Emitting Diode (LED) and incandescent runway lighting system designed to be rapidly installed at contingency airfields and at other locations that need temporary airfield lighting. The lighting kit for runways includes runway edge and threshold lights, precision approach path indicator (PAPI), and strobe approach lights, distance to go marker lamps, taxi way

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment		P-1 Line Item Number / Title: 845420 / Mobility Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>lamps and battery-operated obstruction lights. The EALS also includes the generators, cables, control cables, transformers and regulators. The entire system is packaged on six (6) mobile trailers. System will be replaced with a Next Generation System over the FYDP.</p> <p>Mobile Aircraft Arresting System: This air transportable barrier arresting Bak-12 mounted on a mobile trailer to accommodate the recovery of fighter aircraft returning to battle damaged airfield.</p> <p>Hygiene: Hygiene includes Shower, Shave and Latrine, WH-400 water heaters for initial Hygiene fielding and Self Help Laundry system which provides personal hygiene facilities in support of BEAR bases.</p> <p>Shelters: Shelters vary in sizes and are needed for billeting, kitchen, hygiene, and aircraft and equipment maintenance. Includes lighting, electrical equipment, environmental control units, remote area lighting, Shelter Flies, Shelter Flooring/matting for various shelter sizes, Shelter liners.</p> <p>Feeding: BEAR Feeding includes kitchen and all applicable equipment. BEAR Feeding system provides the capability to prepare, and then serve, 500 meals over a two hour serving period, twice per day (24 hour period). The Feeding system is worldwide deployable and supports numerous basing options. This system supports initial mission requirements and follow-on high mobility feeding requirements for rapidly deployable mobility packages and other contingencies in all theaters of operation.</p> <p>Heating, Ventilating, and Air Conditioning (HVAC): provide thermal comfort and acceptable indoor air quality.</p> <p>Environmental Control Unit (ECU): Heat Pump to provide cooling, heating via reversing valve (heat pump) and supplemental heat via resistance heat strips.</p> <p>Training/Multi-Media Training - Provides BEAR and items for all training sites and funds for all required BEAR multi-media training requirements.</p> <p>"Fiscal Year (FY) 2018 BEAR received its first distribution of OCO funds to support the European Defense Initiative": \$73.983 million was received to start the procurement of BEAR commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"</p> <p>"Fiscal Year" (FY) 2019 BEAR received its second distribution of OCO funds to support the European Defense Initiative": \$78.562 million was received to continue the procurement of BEAR commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"</p> <p>"Fiscal Year" (FY) 2020 European Defense Initiative" Funding was transitioned from OCO to Baseline (EDI): \$26.535 million was received to continue the procurement of BEAR commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"</p> <p>"Fiscal Year" (FY) 2021 BEAR Baseline funding reduced by \$7.7 Million</p> <p>"Fiscal Year (FY) 2018 BEAR received a funding plus-up of \$36M dollars to address equipment disconnects to support emergent warfighter readiness requirements in the Pacific Theatre.</p> <p>Fiscal Year (FY) 2018 BEAR received a Congressional Mark in the amount of \$5M dollars (Feeding Earmark) to replace aging Legacy 9-2 kitchen systems.</p> <p>Program element associated with this P-1 Line is: 0401135F.</p>		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment **P-1 Line Item Number / Title:** 845420 / Mobility Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Mobility Equipment				- / -	- / 87.735	- / 52.974	- / 18.266	- / 33.694	- / 51.960
P-40	Total Gross/Weapon System Cost				- / -	- / 87.735	- / 52.974	- / 18.266	- / 33.694	- / 51.960

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
 FY 2021 procurement dollars in the amount of \$51.960M will procure equipment in support of, but not limited to, the European Contingency Air Operations Set (ECAOS), Deployable Air Base Systems (DABS), Asian Pacific Stability Initiative, and other WRM Global Theater requirements. It will also provide for Program Management Administration (PMA) and other government associated costs in support installation and unit mission requirements for Air Force personnel.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845420 / Mobility Equipment **Aggregated Items Title:** Mobility Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BASE LIGHTING	A		-	-	-	-	-	-	31,386.00	117	3.672	-	-	0.000	41,254.00	6	0.248	41,254.00	6	0.248
BEAR High Power (BPU)	A		-	-	-	701,000.00	6	4.206	-	-	-	-	-	-	701,000.00	3	2.103	701,000.00	3	2.103
AIRFIELD LIGHTING	A		-	-	-	-	-	-	1,500K	8	12.000	1,500K	7	10.500	1,500K	6	9.000	1,500K	13	19.500
HYGIENE	A		-	-	-	190,717.00	96	18.309	421,601.00	24	10.118	-	-	-	-	-	-	-	-	-
WATER PRODUCTION	A		-	-	-	239,358.00	36	8.617	247,239.00	15	3.709	-	-	-	278,406.00	3	0.835	278,406.00	3	0.835
FEEDING	A		-	-	-	506,250.00	16	8.100	-	-	-	250,000.00	8	2.000	-	-	-	250,000.00	8	2.000
MOBILE AIRCRAFT ARRESTING SYSTEM	A		-	-	-	283,790.00	27	7.662	283,790.00	8	2.270	721,555.00	2	1.443	721,555.00	13	9.380	721,555.00	15	10.823
POWER PRODUCTION	A		-	-	-	19,111.00	1,230	23.507	19,180.00	263	5.044	20,678.00	72	1.489	20,678.00	66	1.365	20,678.00	138	2.854
SHELTERS	A		-	-	-	111,087.00	62	6.887	169,333.00	77	13.039	-	-	-	239,468.00	16	3.831	239,468.00	16	3.831
ENVIRONMENTAL	A		-	-	-	5,417.00	1,621	8.781	7,042.00	228	1.606	11,575.00	94	1.088	11,575.00	584	6.760	11,575.00	678	7.848
PMA - OTHER GOVERNMENT COST	A		-	-	-	-	-	0.075	53,000.00	1	0.053	-	-	-	-	-	-	-	-	-
PMA - CONTRACTOR SERVICES	A		-	-	-	-	-	0.816	792,952.00	1	0.793	927,000.00	1	0.927	-	-	-	927,000.00	1	0.927
TRANSPORTATION	A		-	-	-	-	-	0.775	670,000.00	1	0.670	819,024.00	1	0.819	172,000.00	1	0.172	495,512.00	2	0.991
Subtotal: Uncategorized			-	-	-	-	-	87.735	-	-	52.974	-	-	18.266	-	-	33.694	-	-	51.960
Total			-	-	-	-	-	87.735	-	-	52.974	-	-	18.266	-	-	33.694	-	-	51.960

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

Remarks:
 Unit Costs for FY21 are assumed and subject to change.
 PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies, studies and Advisory and Administrative Services (A&AS).
 PMA Other Contractor Services: This funding includes provisions for government contract oversight, technical expertise, and program office support associated with the BEAR program.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845550 / Fuels Support Equipment (FSE)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	28.295	9.601	1.777	11.378	11.275	9.656	9.807	9.987	-	80.398
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	28.295	9.601	1.777	11.378	11.275	9.656	9.807	9.987	-	80.398
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	0.000	28.295	9.601	1.777	11.378	11.275	9.656	9.807	9.987	-	80.398

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

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

Description:

This program funds for the procurement of Fuels Operational Readiness Capability Equipment (FORCE). It provides the capability to receive, store, and issue petroleum products and support aircraft generation where fixed systems do not exist or require augmentation. FORCE is a subset of the Pre-Positioned War Reserve Capabilities (PWRC), it is a Force Generation Set (FGS) that provides mission oriented operational capability packages/force modules aligned with the air and space expeditionary task force modules described in AFI 10-401, AF Operations Planning and Execution, and this instruction. This program serves a critical role in support of the Combatant Commanders(COCOM)requirements to support 5 Major OPLANS, and ensures the objectives of the Asian Pacific Stability and European Defense Initiatives can be executed.

Fuels Operational Readiness Capability Equipment (FORCE Starter (FS), Receipt (RC)and Sustainment (SC) is a deployable modular fuel system that can provide joint capability to fuel aircraft and support equipment at forward locations. The FORCE system can be configured to perform limited aircraft fueling missions or to sustain massive daily fueling requirements for months. FORCE is capable of receiving, transferring, and issuing fuel at a throughput rate of 900 Gallons per Minute (GPM). The individual pieces of equipment that comprise the FORCE system provide stand-alone or mix-and-match capability for almost any fuel transfer or aircraft refueling scenario. The full capability mission of the complete FORCE System, when used in conjunction with fabric fuel bladders, provides a deployable, above ground, constant pressure, flow-on demand fueling system for aircraft, i.e., a hydrant-type fueling system.

Aerial Bulk Fuel Delivery System (ABFDS), designed for aerial delivery of fuel to locations where other methods of transportation are impractical, it enables aircraft to rapidly transport fuel to locations close to or behind enemy lines. It is the key component to the AFSOC community and their ability to complete Forward Area Refueling Point missions(FARP).

3K Collapsible Fuel Tanks (CFT) are specifically designed to be loaded on military aircraft and withstand the critical demands put on them during flight operations, in conjunction with the ABFDS they provide the ability to transfer fuel from the aircraft storage bladder while aircraft engines are running.

Collapsible Fuel Tanks (CFT) or more commonly referred to as fuel bladders provide fuel storage capabilities at austere or forward operating locations where infrastructure is either inadequate or non-existent. Bladders sizes range from 10K, 50K and 210K gallons of fuel storage, these bladders are capable of holding a multitude of petroleum products to support both air and ground operations. Collapsible fuel tanks are used with Fuels Operational Readiness Capability Equipment (FORCE) to support various aircraft systems at forward operating locations.

500 Gal LOX/Lin Tanks, are deployable liquid oxygen/liquid nitrogen storage tanks that can receive, store, and issue liquid oxygen or nitrogen products to service carts or smaller tanks. Provides bulk storage capacity and is used to fill smaller cryogenic equipment (8 Cylinder trailers, 50 Gallon LOX Tank) and aircraft.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment		P-1 Line Item Number / Title: 845550 / Fuels Support Equipment (FSE)
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Fuels Pumping & Distribution provides multiple capabilities to receive and deliver petroleum products to initiate and sustain ground and air operations for both expeditionary and contingency operations. Ensures the ability to service smaller aircraft such as UAV's and base support vehicles, and increases the distance that fuel loads can be safely distributed to the base up to 3 miles.

"Fiscal Year (FY) 2018 FORCE received its first distribution of OCO funds to support the European Defense Initiative": \$28.032 million was received to start the procurement of FORCE commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"

"Fiscal Year" (FY) 2019 FORCE received its second distribution of OCO funds to support the European Defense Initiative": \$18,755 million was received to continue the procurement of FORCE commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"

"Fiscal Year" (FY) 2020 European Defense Initiative" Funding was transitioned from OCO to Baseline (EDI): \$4.0 million was received to continue the procurement of FORCE commodities required to fill the 24 Deployable Air Base Systems (DABS) needed to "Set the Theatre"

"Fiscal Year" (FY) 2021 FORCE Baseline funding was reduced by \$4.84 Million

Previous Fuels requirements were levied under BPAC 845990 / Base Maintenance and Support Equipment , starting in FY20 all FORCE requirements fall under BPAC 845550.

Funding for this exhibit contained in PE 028031F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845550 / Fuels Support Equipment (FSE)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-40a	Fuels Support Equipment (FSE)				- / -	- / 0.000	- / 28.295	- / 9.601	- / 1.777	- / 11.378
P-40	Total Gross/Weapon System Cost				- / -	- / 0.000	- / 28.295	- / 9.601	- / 1.777	- / 11.378

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 procurement dollars in the amount of \$9.601M Base and \$1.777M OCO for a total of \$11.378M. will procure equipment in support of, but not limited to, the European Contingency Air Operations Set (ECAOS), Deployable Air Base Systems (DABS), Asian Pacific Stability Initiative, and other War Reserve Materiel Global Theater requirements. It will also provide for Program Management Administration (PMA) and other government associated costs in support installation and unit mission requirements for Air Force personnel.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5 **P-1 Line Item Number / Title:** 845550 / Fuels Support Equipment (FSE) **Aggregated Items Title:** Fuels Support Equipment (FSE)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
WRM FORCE																				
FORCE SERVICING (FS, RC,SC)	A		-	-	-	-	-	-	-	-	3.450	0.143	5	0.715	-	-	-	0.143	5	0.715
FUEL STORAGE(BLADDERS)	A		-	-	-	-	-	-	-	-	7.808	0.034	87	2.958	0.034	28	0.952	0.034	115	3.910
AERIAL BULK FUEL DELIVERY SYSTEM (ABFDS)	A		-	-	-	-	-	-	-	-	-	0.750	7	5.250	0.750	1	0.750	0.750	8	6.000
CRYOGENICS (LOX/LIN TANKS)	A		-	-	-	-	-	-	-	-	4.140	0.090	2	0.180	-	-	-	0.090	2	0.180
FUELS PUMPING & DISTRIBUTION	A		-	-	-	-	-	-	12.290	1	12.290	-	-	-	-	-	-	-	-	-
PMA OTHER GOVERNMENT CHARGES (FORCE)	A		-	-	-	-	-	-	-	-	0.407	-	-	0.400	-	-	-	-	-	0.400
PMA OTHER CONTRACTOR SERVICES (FORCE)	A		-	-	-	-	-	0.000	-	-	0.200	-	-	0.026	-	-	-	-	-	0.026
TRANSPORTATION MOORD	A		-	-	-	-	-	-	-	-	-	0.072	1	0.072	0.075	1	0.075	0.074	2	0.147
Subtotal: WRM FORCE			-	-	-	-	-	0.000	-	-	28.295	-	-	9.601	-	-	1.777	-	-	11.378
Total			-	-	-	-	-	0.000	-	-	28.295	-	-	9.601	-	-	1.777	-	-	11.378

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

Remarks:

PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies, studies and Advisory and Administrative Services (A&AS).

PMA Other Contractor Services: This funding includes provisions for government contract oversight, technical expertise, and program office support associated with the FSE/FORCE program.

Requirements are subject to change based on shifts in both Air Force priorities and operational requirements in the year of execution.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment	P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	52.060	59.053	42.078	31.620	73.698	45.626	48.143	66.780	73.737	-	419.097
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	52.060	59.053	42.078	31.620	73.698	45.626	48.143	66.780	73.737	-	419.097
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	52.060	59.053	42.078	31.620	73.698	45.626	48.143	66.780	73.737	-	419.097

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

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

Description:

This program provides a wide variety of base support items with worldwide application, to include but not limited to: Aircraft Arresting Systems; Aircraft Recovery Systems; Industrial Plant Equipment (IPE); Fuels Support Equipment; Base Generator Power Systems, Deployable Debrief Facilities (DDF); Flight Line Fire Extinguishers and Cargo Pallet and Net systems. This equipment provides prime support for all base missions and supports the Air Force Metrology and Calibration Program to ensure accuracy and uniformity in standards and equipment used to measure and test Air Force systems and equipment. Accuracy is achieved by relating all measurements to national and international standards maintained by the National Institute of Standards and Technology (NIST) and other recognized sources. That relationship produces a traceability chain through a measurement hierarchy whereby base measurement standards are calibrated against Air Force primary standards, which are in turn calibrated against the national standards. Accuracy is imperative to ensure that the weapons used by our operational forces arrive on target. Uniformity is imperative to ensure consistency of AF systems and safety of AF operators. Program ensures development/determination, procurement, and distribution of standards and related equipment to 65 Air Force Base PMELs residing in every Major Command (MAJCOM) worldwide and to the Air Force Primary Standards Laboratory (AFPSL). This program serves a critical role in support of Transport and Fighter Aircraft Operations across multiple operations worldwide, including but not limited to the European Deterrence Initiative, Pacific Theater, and other forward operating locations.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	3,680	0	0	0	-	-	-	-
	Total Obligation Authority	52.060	57.450	40.445	31.620	72.065	-	-	-
AFNG	Quantity	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	1.509	1.536	0.000	1.536	-	-	-
AFR	Quantity	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	0.094	0.097	0.000	0.097	-	-	-
Total: Secondary Distribution	Quantity	3,680	0	0	0	-	-	-	-
	Total Obligation Authority	52.060	59.053	42.078	31.620	73.698	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment

P-1 Line Item Number / Title:
845990 / Base Maintenance and Support Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Base Maintenance and Support Equipment				- / -	- / 52.060	- / 59.053	- / 42.078	- / 31.620	- / 73.698
P-40	Total Gross/Weapon System Cost				- / -	- / 52.060	- / 59.053	- / 42.078	- / 31.620	- / 73.698

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:

FY21 will procure the following:
 Fuels Support Equipment (Non-WRM): (FSE-NWRM)
 FSE and FSE related items not included in the Fuels Support Equipment War Readiness Material POM (PEC 845550) that provide operational support to Air Force installations and fuels management facilities worldwide in the form of fuel storage, fuel delivery, liquid oxygen and nitrogen storage and refueling capabilities. Items include but are not limited to the Fuels Operational Readiness Capability Equipment (FORCE), Cryogenics Support (LIN/LOX), Collapsible Fuel Tanks (10K, 50K, & 210K), Aerial Bulk Fuel Delivery System (ABFDS) & 3K Bladders and other required general fuels support equipment. This equipment provides prime support for all base essential missions(Non-WRM or Non-War Reserve Materiel).

Cargo Pallets and Nets:
 Cargo Pallets & Nets provide an expedient means of loading and unloading cargo on transport aircraft across the DoD. Pallets & Nets also secure cargo to maintain aircraft balance which is crucial to safety of flight. 661 users across the DoD rely on Pallets & Nets to carry out their primary mission, through which capability and equipment are transported to all parts of the globe, enabling the execution of our National Defense Strategy.

Small Munitions Trailers:
 The Small Munitions Trailers program provides trailers (and associated accessories) capable of carrying up to 15,000 lbs of conventional munitions and up to 5,500 lbs of nuclear munitions in direct support to aircraft operations. These trailers can carry bombs, missiles (Air-to-Air and Air-to-Ground), all calibers of ammunition, all countermeasures all decoys and practice bombs. Small Munitions Trailers directly support B-1, B-2, B-52, A-10, F-15, F16, F-22, C-5, C-17, C-130, AC-130, KC-46, KC-10 and KC-135 rated to carry munitions as cargo. The goal of this program is to replace all legacy small munitions trailers in USAF inventory in one program effort. The average legacy trailer has exceeded twice its 20 year service life. The last procurement of these trailers was in 1992. The impact of age plus wear and tear have created serious obsolescence issues and high overhaul repair costs. Currently, the cost to complete a depot overhaul of a legacy trailer is nearly twice the estimated procurement cost of a new trailer.

Lack of funding for these equipment items limits flight operations, maintenance capabilities, testing functions, anti-terrorism/security missions, communications capabilities, and the ability of Air Force units to meet peacetime and deployment requirements.

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.

Program elements associated with this P-1 Line are: 0702207F, 0202834F, 0207142F, 0208031F, 0208530F, 0402834F, 0502834F, 0502844F, 0702834F, 0802834F, 0804741F.

FY 2021 procurement dollars will procure support equipment items, Program Management Administration (PMA), and other government associated costs in support of base and unit mission requirements for Air Force personnel.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 5: Base Support Equipment		P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

CY 2021 funding totals include \$30.65M in Overseas Contingency Operations.
PY 2020 funding totals include \$20.067M for OCO.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force																	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5						P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment						Aggregated Items Title: Base Maintenance and Support Equipment								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Support Equipment and Vehicles (SEV)																				
SMALL MUNITIONS TRAILERS RECAP (MHU-110/141)	A		-	-	-	-	-	-	-	-	11.950	-	-	12.482	-	-	3.000	-	-	15.482
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	11.950	-	-	12.482	-	-	3.000	-	-	15.482
FSE-NWRM ⁽¹⁾	A		-	-	-	1.560	21	32.767	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	21	32.767	-	-	-	-	-	-	-	-	-	-	-	-
PMA OTHER GOVERNMENT COSTS (FORCE)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AIRCRAFT ARRESTING SYSTEM	A		-	-	-	-	-	-	-	-	0.768	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AFNG			-	-	-	-	-	-	-	-	0.768	-	-	-	-	-	-	-	-	-
BASE GENERATOR POWER SYSTEMS	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BASE PALLETS AND NETS SYSTEMS ⁽²⁾	A		-	-	-	0.002	3,656	8.045	-	-	41.250	-	-	13.984	-	-	28.620	-	-	42.604
<i>Secondary Distribution</i>																				
AF			-	-	-	-	3,656	8.045	-	-	41.250	-	-	13.984	-	-	28.620	-	-	42.604
PMA - OTHER GOVERNMENT COSTS	A		-	-	-	-	-	0.020	-	-	0.050	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	0.020	-	-	0.050	-	-	-	-	-	-	-	-	-
PMA CONTRACTOR SERVICES	A		-	-	-	-	-	-	-	-	0.200	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	-	-	-	0.200	-	-	-	-	-	-	-	-	-
ECAOS/DABS-FEV ⁽³⁾	A		-	-	-	3.100	3	9.300	-	-	-	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
AF			-	-	-	-	3	9.300	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Equipment and Vehicles (SEV)			-	-	-	-	-	50.132	-	-	54.218	-	-	26.466	-	-	31.620	-	-	58.086
Air Force Sustainment Center (AFSC) (404)																				
IPE EQUIPMENT	A		-	-	-	-	-	-	-	-	0.835	-	-	1.633	-	-	-	-	-	1.633

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5	P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment	Aggregated Items Title: Base Maintenance and Support Equipment
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Secondary Distribution</i>																				
AFNG			-	-	-	-	-	0.741	-	-	1.536	-	-	-	-	-	-	-	1.536	
AFR			-	-	-	-	-	0.094	-	-	0.097	-	-	-	-	-	-	-	0.097	
Subtotal: Air Force Sustainment Center (AFSC) (404)			-	-	-	-	-	0.835	-	-	1.633	-	-	-	-	-	-	-	1.633	
OTHER ORGANIZATIONS																				
AUTOMATED HIGH VACUUM GAUGE SYSTEM (AFMETCAL)	A		-	-	-	-	-	4.000	-	-	13.979	-	-	-	-	-	-	-	13.979	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	4.000	-	-	13.979	-	-	-	-	-	-	-	13.979	
DEPLOYABLE DEBRIEF FACILITIES (DDF)	A		-	-	-	-	1.368	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	1.368	-	-	-	-	-	-	-	-	-	-	-	-	
EXERCISE PREFAB GYM FACILITY (4)	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
EQUIPMENT FOR UNDERGRADUATE PILOT TRAINING (UPT)	A		-	-	-	-	0.560	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Secondary Distribution</i>																				
AF			-	-	-	-	0.560	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: OTHER ORGANIZATIONS			-	-	-	-	1.928	-	-	4.000	-	-	13.979	-	-	-	-	-	13.979	
Total			-	-	-	-	52.060	-	-	59.053	-	-	42.078	-	-	31.620	-	-	73.698	

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

Remarks:
PMA OTHER GOVERNMENT COSTS: This line supports the operation of the program office in its management and oversight role via travel, procurement of supplies, studies and Advisory and Administrative Services (A&AS).
PMA Other Contractor Services: This funding includes provisions for government contract oversight, technical expertise, and program office support associated with the and Pallets and Nets program.
Requirements are subject to change based on shifts in Air Force priorities in the year of execution.

Footnotes:
(1) FY19 funding includes \$9.300M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV)
(2) FY18 funding includes \$30.032M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV); FY18 funding for COCOM requirement for USAFE (Incirlik AB) ; FY19 funding includes \$9.300M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV); FY20 funding includes \$20.067M requested for Overseas Contingency Operations to procure pallets and nets.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 5	P-1 Line Item Number / Title: 845990 / Base Maintenance and Support Equipment	Aggregated Items Title: Base Maintenance and Support Equipment

⁽³⁾ FY18 funding includes \$30.032M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV)
⁽⁴⁾ FY18 funding for COCOM requirement for USAFE (Incirlik AB) ; FY19 funding includes \$9.300M requested for Overseas Contingency Operations to procure the European Contingency Air Operations Set (ECAOS) Deployable Air Base System (DABS) - Facilities, Equipment, and Vehicles (FEV)

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects	P-1 Line Item Number / Title: 846070 / DARP RC135
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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: 0305207F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769

(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:

RC-135 procurement is executed by the Big Safari RC-135 Program Manager and is supported by various contractors. The contractors provide services including Program Depot Maintenance (PDM), prime mission equipment overhaul, special repair activity, in-plant support (sustainment engineering, software engineering, and program management), configuration management, LRU repair, and field service maintenance and training for special operational missions. The RC-135 Program Manager provides the full-range of weapons system management, acquisition oversight, program security and integrated logistics for the RC-135 aircraft, power plant, sensors and associated support and equipment. Due to the rapidly changing global threat environment, the Program Manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander and Intelligence Community (IC) requirements.

Funding for this exhibit contained in PE 0305207F.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects **P-1 Line Item Number / Title:** 846070 / DARP RC135

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305207F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / DARP Modification (Capability Improvement)		A		- / 75.945	- / 26.262	- / 51.779	- / 27.164	- / 0.000	- / 27.164
P-40	Total Gross/Weapon System Cost				- / 75.945	- / 26.262	- / 51.779	- / 27.164	- / 0.000	- / 27.164

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / DARP Modification (Capability Improvement)		A		- / 27.658	- / 28.142	- / 28.647	- / 29.172	- / -	- / 294.769
P-40	Total Gross/Weapon System Cost				- / 27.658	- / 28.142	- / 28.647	- / 29.172	- / -	- / 294.769

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

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

Justification:
 FY21 procurement funding acquires and installs various upgrade and enhancement modifications for ground support equipment associated with the RC-135 program. This ground support equipment is directly tied to fielded baselines of the RC-135 V/W RIVET JOINT, RC-135S COBRA BALL, and the RC-135U COMBAT SENT. The requirement to maintain commonality with fielded baselines necessitates the continuous modification and installation of upgrades concurrent with RC-135 aircraft entering operational status. These ground systems are critical to the post-mission processing of highly perishable intelligence information, and supporting aircrew proficiency training, virtual simulation exercises that contribute to distributed mission training initiatives, and provide support to indigenous maintenance during aircraft deployments to "bare-base locations. Additionally, all applicable ground support equipment is required to comply with NSA intelligence data recording formats and requirements due to the nature and sensitivity of the information.

Congressional adds in FY20 added \$25.063M of OPAF to replace equipment destroyed during the March 2019 flood at Offutt AFB, NE.

Ground support equipment includes, but is not limited to: RIVET JOINT Mission Trainer (RJMT), Ground Data Processing System (GDPS), Mission Crew Training System (MCTS), Modular Processing System (MPS), and the Airborne Capability Extension System (ACES).

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846070 / DARP RC135	Modification Number / Title: 1 / DARP Modification

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769

(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:

RC-135 procurement is executed by the Big Safari RC-135 Program Manager and is supported by various contractors. The contractors provide services including Program Depot Maintenance (PDM), prime mission equipment overhaul, special repair activity, in-plant support (sustainment engineering, software engineering, and program management), configuration management, LRU repair, and field service maintenance and training for special operational missions. The RC-135 Program Manager provides the full-range of weapons system management, acquisition oversight, program security and integrated logistics for the RC-135 aircraft, power plant, sensors and associated support and equipment. Due to the rapidly changing global threat environment, the Program Manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander and Intelligence Community (IC) requirements.

FY21 procurement funding acquires and installs various upgrade and enhancement modifications for ground support equipment associated with the RC-135 program. This ground support equipment is directly tied to fielded baselines of the RC-135 V/W RIVET JOINT, RC-135S COBRA BALL, and the RC-135U COMBAT SENT. The requirement to maintain commonality with fielded baselines necessitates the continuous modification and installation of upgrades concurrent with RC-135 aircraft entering operational status. These ground systems are critical to the post-mission processing of highly perishable intelligence information, supporting aircrew proficiency training, virtual simulation exercises that contribute to distributed mission training initiatives, and provide support to indigenous maintenance during aircraft deployments to "bare-base locations. Additionally, all applicable ground support equipment is required to comply with NSA intelligence data recording formats and requirements due to the nature and sensitivity of the information.

Congressional adds in FY20 added \$25.063M of OPAF to replace equipment destroyed during the March 2019 flood at Offutt AFB, NE.

Ground support equipment includes, but is not limited to: RIVET JOINT Mission Trainer (RJMT), Ground Data Processing System (GDPS), Mission Crew Training System (MCTS), Modular Processing System (MPS), and the Airborne Capability Extension System (ACES).

Milestone/Development Status

Fully Fielded Systems

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6					P-1 Line Item Number / Title: 846070 / DARP RC135					Modification Number / Title: 1 / DARP Modification			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: RC-135				Modification Type: Capability Improvement				Related RDT&E PEs: 0305207F					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> BL Ground Systems													
A Kits													
Recurring													
BL Ground Systems:INSTALL KITS Group A (Active)	3 / 53.791	1 / 19.179	1 / 44.597	1 / 19.722	- / -	1 / 19.722	1 / 20.100	1 / 20.461	1 / 20.838	1 / 21.485	- / -	10 / 220.173	
<i>Subtotal: Recurring</i>	- / 53.791	- / 19.179	- / 44.597	- / 19.722	- / -	- / 19.722	- / 20.100	- / 20.461	- / 20.838	- / 21.485	- / -	- / 220.173	
B Kits													
Recurring													
BL Ground Systems:EQUIPMENT Group B (Active)	3 / 18.938	1 / 6.011	1 / 6.110	1 / 6.370	- / -	1 / 6.370	1 / 6.486	1 / 6.609	1 / 6.737	1 / 6.615	- / -	10 / 63.876	
<i>Subtotal: Recurring</i>	- / 18.938	- / 6.011	- / 6.110	- / 6.370	- / -	- / 6.370	- / 6.486	- / 6.609	- / 6.737	- / 6.615	- / -	- / 63.876	
<i>Subtotal: BL Ground Systems</i>	- / 72.729	- / 25.190	- / 50.707	- / 26.092	- / -	- / 26.092	- / 26.586	- / 27.070	- / 27.575	- / 28.100	- / -	- / 284.049	
<i>Subtotal: Procurement, All Modification Items</i>	- / 72.729	- / 25.190	- / 50.707	- / 26.092	- / -	- / 26.092	- / 26.586	- / 27.070	- / 27.575	- / 28.100	- / -	- / 284.049	
Installation													
<i>Modification Item 1 of 1:</i> BL Ground Systems													
	3 / 3.216	1 / 1.072	1 / 1.072	1 / 1.072	- / -	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	- / -	10 / 10.720	
<i>Subtotal: Installation</i>	3 / 3.216	1 / 1.072	1 / 1.072	1 / 1.072	- / -	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	- / -	10 / 10.720	
Total													
Total Cost (Procurement + Support + Installation)	75.945	26.262	51.779	27.164	0.000	27.164	27.658	28.142	28.647	29.172	-	294.769	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force											Date: February 2020																				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6						P-1 Line Item Number / Title: 846070 / DARP RC135						Modification Number / Title: 1 / DARP Modification																			
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:																				
Modification Item 1 of 1: BL Ground Systems																															
Manufacturer Information																															
Manufacturer Name: L3Harris Technologies											Manufacturer Location: Greenville, TX																				
Administrative Leadtime (in Months): 2											Production Leadtime (in Months): 6																				
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025																								
Contract Dates	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024																								
Delivery Dates	Jun 2019	Jun 2020	Jun 2021	Jun 2022	Jun 2023	Jun 2024	Jun 2025																								
Installation Information																															
Method of Implementation: Contractor Facility																															
Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total																			
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)																
Prior Years	3 / 3.216	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 3.216																		
FY 2019	- / -	1 / 1.072	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072																		
FY 2020	- / -	- / -	1 / 1.072	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072																		
FY 2021	- / -	- / -	- / -	1 / 1.072	- / -	1 / 1.072	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072																		
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072	- / -	- / -	- / -	- / -	- / -	1 / 1.072																		
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072	- / -	- / -	- / -	- / -	1 / 1.072																		
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072	- / -	- / -	- / -	1 / 1.072																		
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.072	- / -	- / -	1 / 1.072																		
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total	3 / 3.216	1 / 1.072	1 / 1.072	1 / 1.072	- / -	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	1 / 1.072	- / -	10 / 10.720																		
Installation Schedule																															
	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	3	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	0	10
Out	3	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	0	10

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects	P-1 Line Item Number / Title: 846080 / DCGS-AF
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0305208F	Other Related Program Elements: 0305208F, 0305240F
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	243.141	397.987	116.055	121.528	18.700	140.228	150.778	153.499	156.350	159.215	-	1,517.253
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	243.141	397.987	116.055	121.528	18.700	140.228	150.778	153.499	156.350	159.215	-	1,517.253
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	243.141	397.987	116.055	121.528	18.700	140.228	150.778	153.499	156.350	159.215	-	1,517.253

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

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

Description:

Air Force Distributed Common Ground System (AF DCGS) is the Combat Air Force (CAF) weapon system for planning and direction, collection, processing and exploitation, analysis and production, and dissemination (PCPAD) of data from Intelligence, Surveillance, and Reconnaissance (ISR) missions. Since AF DCGS is also a major component of the DoD DCGS, the system is designed to complement and interoperate with the DoD, Army, Navy and Marine Corps DCGS. The AF DCGS mission is to provide Joint Task Force (JTF) Commanders, Air Component Commanders, Unified Commands, and other directed organizations with global, time-sensitive ISR PCPAD across the spectrum of military operations. AF DCGS is a multi-INT, federated weapon system (AN/GSQ-272) capable of exploiting intelligence data from manned platforms, remotely piloted aircraft (RPA), non-traditional ISR platforms, national and commercial satellites and other collection systems.

AF DCGS is designed to support Joint operational requirements by providing a common PCPAD means to provide time-sensitive intelligence to field commanders and in support of the Air Operations Center (AOC) mission requirements and supports the "kill chain across the full range of military operations. Currently, AF DCGS is composed of eight core sites (two active duty worldwide, three active duty regional and three Air National Guard regional), three remote Air Force Forces (AF FOR) sites, six SIGINT Distributed Mission Sites (four collocated with National Mission Partner), three Air National Guard full-motion video sites, three support sites, three training sites, and three integration and test sites. AF DCGS currently supports ongoing operations from forward deployed and in-garrison CONUS and OCONUS-based locations. AF DCGS provides integrated ISR by providing quality, fused Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT) tailored to the warfighter for all levels of conflict.

In alignment with DoD and AF direction, AF DCGS is migrating to an open architecture to rapidly incorporate new technologies and tools to easily integrate new and/or improved sensor capabilities, as well as provide improved mission applications to meet emerging and urgent operational needs. AF DCGS integrates services and applications from both commercial-off-the-shelf and government-off-the-shelf sources to the maximum extent possible to fulfill operational requirements and data sharing requirements across the DoD DCGS community. The next iteration will involve transitioning to a hybrid cloud (mix of private on premise and public cloud) architecture.

Program management consists of five ACAT III efforts: GEOINT Transformation, SIGINT Transformation, Multi-INT, Network Infrastructure Transformation, and DCGS Reference Imagery Transition (DRT)

1. GEOINT Transformation: Rapidly integrates new GEOINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, and command and control (C2) capabilities and migrates GEOINT-specific applications into the open architecture framework. Leverages mission partner methods and tools to the maximum extent possible.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects	P-1 Line Item Number / Title: 846080 / DCGS-AF
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0305208F	Other Related Program Elements: 0305208F, 0305240F
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Line Item MDAP/MAIS Code: N/A

2. SIGINT Transformation: Rapidly integrates new SIGINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, command and control (C2) capabilities and migrates SIGINT-specific applications into the open architecture framework. Leverages mission partner methods and tools to the maximum extent possible.

3. Multi-INT-1: Rapidly integrates new and updated enterprise applications, to include voice/video/chat communications, collaboration and situational awareness, multi-INT fusion, and data analytics capabilities into the open architecture framework. Also includes Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT) program, which develops concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing ISR and non-kinetic capabilities. Addressees program office test and evaluation activities.

4. Network Infrastructure Transformation: Modernizes the AF DCGS infrastructure to a cyber-resilient, open, scalable, commercial-based, architecture, improving data ingest, transfer, and storage capabilities, collaboration, and content driven discovery. OA DCGS Platform as a Service, along with migration to a hub-based architecture and public cloud represents the AF DCGS hybrid cloud (mix of private on premise and public cloud) architecture.

5. *DRT: The Air Force DCGS Reference Imagery Transition (DRT) effort provides data ingest, transfer, and storage capabilities for NGA reference imagery data.

NOTES:

*No additional funding planned in FY20 or out years; ACAT will be closed once the capability is installed at all sites

Detailed information on PE 0305240F, Support to DoD DCGS Enterprise remains classified and will be provided on a need-to-know basis.

Funding for this exhibit Line Item # 846080 is contained in PEs 0305208F and 0305240F.

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

FY21 funding totals include \$18.7M for Overseas Contingency Operations.

Program Management Administration (PMA): FY21 funding permits the System Program Office (SPO) to support the fielding and installation of new and developing capabilities. This includes the initial bed down and operability testing, technical interchange meetings, and events incident to fielding both hardware and software products, and maintaining configuration control of fielded products.

In accordance with Section 1815 of the FY2008 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	353.187	116.055	121.528	18.700	140.228	128.207	130.535	132.975	135.278
AFNG	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	44.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
AFR	Quantity	0	0	0	0	0	-	-	-	-
	Total Obligation Authority	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
Total:	Quantity	0	0	0	0	0	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects	P-1 Line Item Number / Title: 846080 / DCGS-AF
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0305208F	Other Related Program Elements: 0305208F, 0305240F
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	397.987	116.055	121.528	18.700	140.228	128.207	130.535	132.975	135.278

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UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects **P-1 Line Item Number / Title:** 846080 / DCGS-AF

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0305208F **Other Related Program Elements:** 0305208F, 0305240F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Distributed Common Ground/Surface Systems				- / 19.633	- / 8.478	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / GEOINT Transformation (GEOINT) (Reliability & Maintainability)		B		- / 26.517	- / 60.539	- / 32.898	- / 36.662	- / 1.900	- / 38.562
P-3a	2 / Signals Intelligence (SIGINT) (Reliability & Maintainability)		B		- / 27.544	- / 50.654	- / 25.259	- / 30.768	- / 0.000	- / 30.768
P-3a	3 / Multi-Intelligence (Multi-INT) (Reliability & Maintainability)		B		- / 36.163	- / 31.378	- / 12.987	- / 18.344	- / 16.800	- / 35.144
P-3a	4 / Network Infrastructure Transformation (Reliability & Maintainability)		B		- / 133.284	- / 208.218	- / 22.993	- / 13.466	- / 0.000	- / 13.466
P-40a	Support to DCGS Enterprise				- / -	- / 38.720	- / 21.918	- / 22.288	- / -	- / 22.288
P-40	Total Gross/Weapon System Cost				- / 243.141	- / 397.987	- / 116.055	- / 121.528	- / 18.700	- / 140.228

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Distributed Common Ground/Surface Systems				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 28.111
P-3a	1 / GEOINT Transformation (GEOINT) (Reliability & Maintainability)		B		- / 34.358	- / 44.585	- / 56.600	- / 57.619	- / -	- / 351.678
P-3a	2 / Signals Intelligence (SIGINT) (Reliability & Maintainability)		B		- / 21.702	- / 41.715	- / 22.268	- / 22.635	- / -	- / 242.545
P-3a	3 / Multi-Intelligence (Multi-INT) (Reliability & Maintainability)		B		- / 49.029	- / 23.983	- / 13.463	- / 13.663	- / -	- / 215.810
P-3a	4 / Network Infrastructure Transformation (Reliability & Maintainability)		B		- / 23.118	- / 20.252	- / 40.644	- / 41.361	- / -	- / 503.336
P-40a	Support to DCGS Enterprise				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 150.778	- / 153.499	- / 156.350	- / 159.215	- / -	- / 1,517.253

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

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

Efforts with funding starting in FY 2022 through FY 2025 are summarized on the P-40. Not all details of this funding are included in this P-40 exhibit set. A summary of the excepted details is as follows:

- (a) FY 2022 Cost Delta: 22.571 million
- (b) FY 2023 Cost Delta: 22.964 million
- (c) FY 2024 Cost Delta: 23.375 million
- (d) FY 2025 Cost Delta: 23.937 million
- (e) FY Total Cost Delta: 175.773 million

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6					P-1 Line Item Number / Title: 846080 / DCGS-AF					Aggregated Modification Items Title: Distributed Common Ground/Surface Systems									

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
DCGS13 / NASIC			-	-	1.800	-	-	0.400	-	-	-	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	0.400		-	-		-	0.000		-	-		-	0.000
DCGS5 / Sensor Integration			-	-	17.687	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	0.000		-	0.000		-	0.000		-	-		-	0.000
DCGS8 / DCGS Reference Imagery Transition (DRT)			-	-	0.146	-	-	8.078	-	-	-	-	-	0.000	-	-	-	-	-	0.000
<i>Secondary Distribution</i>																				
AF				-	-		-	8.078		-	-		-	0.000		-	-		-	0.000
Total			-	-	19.633	-	-	8.478	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
DCGS13 / NASIC			-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	2.200
<i>Secondary Distribution</i>																				
AF				-	0.000		-	0.000		-	-		-	-		-	-		-	-
DCGS5 / Sensor Integration			-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	17.687
<i>Secondary Distribution</i>																				
AF				-	0.000		-	0.000		-	0.000		-	-		-	-		-	-
DCGS8 / DCGS Reference Imagery Transition (DRT)			-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	8.224
<i>Secondary Distribution</i>																				
AF				-	0.000		-	0.000		-	0.000		-	-		-	-		-	-
Total			-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	28.111

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

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
DCGS13 / NASIC	0305208F	Reliability & Maintainability
DCGS5 / Sensor Integration	0305208F	Reliability & Maintainability

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Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846080 / DCGS-AF	Aggregated Modification Items Title: Distributed Common Ground/Surface Systems

Item Number / Title	Models of Systems Affected	Modification Type
DCGS8 / DCGS Reference Imagery Transition (DRT)	0305208F	Reliability & Maintainability

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846080 / DCGS-AF	Modification Number / Title: 1 / GEOINT Transformation (GEOINT)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	26.517	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619	-	351.678
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	26.517	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619	-	351.678
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	26.517	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619	-	351.678

(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:

GEOINT Transformation: Rapidly integrates new GEOINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, and command and control (C2) capabilities and migrates GEOINT-specific applications into the open architecture framework. Leverages mission partner methods and tools to the maximum extent possible.

Justification:

AF DCGS's GEOINT program's main focus is the procurement and fielding of proven technologies for multiple programs including GEOINT Transformation. The GEOINT Transformation leverages an agile infrastructure to use modern information technology (IT) practices and sets the stage from which to accomplish the goals of the AF DCGS architecture roadmap in manageable increments. GEOINT Transformation builds on the GB4.1 foundation to provide enhanced front-end image processing and advanced exploitation tools, which improve the timeliness and quality of GEOINT products, making them more useful to the war-fighter while simultaneously reducing the workload on the DCGS operator.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6					P-1 Line Item Number / Title: 846080 / DCGS-AF					Modification Number / Title: 1 / GEOINT Transformation (GEOINT)			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: DCGS				Modification Type: Reliability & Maintainability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> GEOINT Transformation													
B Kits													
Recurring													
GEOINT Transformation:EQUIPMENT Group B (Active)	0 / 25.694	- / 58.950	- / 30.488	- / 34.114	- / 1.900	- / 36.014	- / 32.705	- / 42.450	- / 53.914	- / 54.881	- / -	0 / 335.096	
<i>Subtotal: Recurring</i>	- / 25.694	- / 58.950	- / 30.488	- / 34.114	- / 1.900	- / 36.014	- / 32.705	- / 42.450	- / 53.914	- / 54.881	- / -	- / 335.096	
<i>Subtotal: GEOINT Transformation</i>	- / 25.694	- / 58.950	- / 30.488	- / 34.114	- / 1.900	- / 36.014	- / 32.705	- / 42.450	- / 53.914	- / 54.881	- / -	- / 335.096	
<i>Subtotal: Procurement, All Modification Items</i>	- / 25.694	- / 58.950	- / 30.488	- / 34.114	- / 1.900	- / 36.014	- / 32.705	- / 42.450	- / 53.914	- / 54.881	- / -	- / 335.096	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / 0.041	- / 0.077	- / 0.085	- / 0.107	- / -	- / 0.107	- / 0.107	- / 0.107	- / 0.107	- / 0.107	- / -	- / 0.738	
PMA - Contractor Services	- / 0.782	- / 1.512	- / 2.325	- / 2.441	- / -	- / 2.441	- / 1.546	- / 2.028	- / 2.579	- / 2.631	- / -	- / 15.844	
ICS-Labor	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / 0.000	
<i>Subtotal: Support</i>	- / 0.823	- / 1.589	- / 2.410	- / 2.548	- / -	- / 2.548	- / 1.653	- / 2.135	- / 2.686	- / 2.738	- / -	- / 16.582	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	26.517	60.539	32.898	36.662	1.900	38.562	34.358	44.585	56.600	57.619	-	351.678	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6			P-1 Line Item Number / Title: 846080 / DCGS-AF			Modification Number / Title: 1 / GEOINT Transformation (GEOINT)	
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:			
Modification Item 1 of 1: GEOINT Transformation							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Robins AFB			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846080 / DCGS-AF	Modification Number / Title: 2 / Signals Intelligence (SIGINT)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	27.544	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635	-	242.545
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	27.544	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635	-	242.545
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	27.544	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635	-	242.545

(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:

SIGINT Transformation: Rapidly integrates new SIGINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, command and control (C2) capabilities and migrates SIGINT-specific applications into the open architecture framework. Leverages mission partner methods and tools to the maximum extent possible.

Justification:

AF DCGS SIGINT Transformation's main focus is AF DCGS peering connectivity to our National Mission Partner network. In order to accomplish this, SIGINT modernization must take place within the OA DCGS environment. This includes development of windows-based SIGINT application software and decoupling of the legacy SIGINT software baseline to take advantage of open architecture infrastructure and enterprise services. Efforts also implement infrastructure changes required to ensure compatibility and access to mission partner tools.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	50.654	25.259	30.768	-	30.768	21.702	41.715	22.268	22.635
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	-	0.000	-	0.000	0.000	0.000	0.000	-
AFR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.000	-	0.000	-	0.000	0.000	0.000	0.000	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6				P-1 Line Item Number / Title: 846080 / DCGS-AF						Modification Number / Title: 2 / Signals Intelligence (SIGINT)		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:					
Models of Systems Affected: 0305208F				Modification Type: Reliability & Maintainability				Related RDT&E PEs: 0305208F				
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> Signals Intelligence Transformation												
B Kits												
Recurring												
Signals Intelligence Transformation:EQUIPMENT Group B (Active)	0 / 26.957	0 / 49.588	- / 23.400	0 / 28.633	- / -	0 / 28.633	0 / 20.600	0 / 39.580	0 / 21.166	- / 21.511	- / -	0 / 231.435
Signals Intelligence Transformation:EQUIPMENT Group B (Guard)	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	0 / 0.000
Signals Intelligence Transformation:EQUIPMENT Group B (Reserve)	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	0 / 0.000
<i>Subtotal: Recurring</i>	- / 26.957	- / 49.588	- / 23.400	- / 28.633	- / -	- / 28.633	- / 20.600	- / 39.580	- / 21.166	- / 21.511	- / -	- / 231.435
<i>Subtotal: Signals Intelligence Transformation</i>	- / 26.957	- / 49.588	- / 23.400	- / 28.633	- / -	- / 28.633	- / 20.600	- / 39.580	- / 21.166	- / 21.511	- / -	- / 231.435
<i>Subtotal: Procurement, All Modification Items</i>	- / 26.957	- / 49.588	- / 23.400	- / 28.633	- / -	- / 28.633	- / 20.600	- / 39.580	- / 21.166	- / 21.511	- / -	- / 231.435
Support (All Modification Items)												
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000
PMA - Contractor Services	- / 0.472	- / 1.033	- / 1.819	- / 2.090	- / -	- / 2.090	- / 1.056	- / 2.085	- / 1.050	- / 1.071	- / -	- / 10.676
PMA - Other Gov't Costs	- / 0.115	- / 0.033	- / 0.040	- / 0.045	- / -	- / 0.045	- / 0.046	- / 0.050	- / 0.052	- / 0.053	- / -	- / 0.434
<i>Subtotal: Support</i>	- / 0.587	- / 1.066	- / 1.859	- / 2.135	- / -	- / 2.135	- / 1.102	- / 2.135	- / 1.102	- / 1.124	- / -	- / 11.110
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	27.544	50.654	25.259	30.768	0.000	30.768	21.702	41.715	22.268	22.635	-	242.545

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6			P-1 Line Item Number / Title: 846080 / DCGS-AF			Modification Number / Title: 2 / Signals Intelligence (SIGINT)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: Signals Intelligence Transformation							
Manufacturer Information							
Manufacturer Name: various				Manufacturer Location: various			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846080 / DCGS-AF	Modification Number / Title: 3 / Multi-Intelligence (Multi-INT)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	36.163	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663	-	215.810
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	36.163	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663	-	215.810
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	36.163	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663	-	215.810

(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:

Multi-INT-1: Rapidly integrates new and updated enterprise applications, to include voice/video/chat communications, collaboration and situational awareness, multi-INT fusion, and data analytics capabilities into the open architecture framework. Also includes Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT) program, which develops concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing ISR and non-kinetic capabilities. Addressees program office test and evaluation activities.

Justification:

This effort continues to deliver new/modernized Multi-INT capabilities to the operator, and addresses any other issues that are identified with other legacy systems/components that AF DCGS must interface with.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6				P-1 Line Item Number / Title: 846080 / DCGS-AF						Modification Number / Title: 3 / Multi-Intelligence (Multi-INT)		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:					
Models of Systems Affected: 0305208F				Modification Type: Reliability & Maintainability				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> Multi-Int Upgrades												
B Kits												
Recurring												
Multi-Int Upgrades:EQUIPMENT Group B (Active)	0 / 35.835	- / 30.223	- / 12.023	- / 17.105	- / 16.800	- / 33.905	- / 46.206	- / 22.468	- / 12.568	- / 12.750	- / -	0 / 205.978
<i>Subtotal: Recurring</i>	- / 35.835	- / 30.223	- / 12.023	- / 17.105	- / 16.800	- / 33.905	- / 46.206	- / 22.468	- / 12.568	- / 12.750	- / -	- / 205.978
<i>Subtotal: Multi-Int Upgrades</i>	- / 35.835	- / 30.223	- / 12.023	- / 17.105	- / 16.800	- / 33.905	- / 46.206	- / 22.468	- / 12.568	- / 12.750	- / -	- / 205.978
<i>Subtotal: Procurement, All Modification Items</i>	- / 35.835	- / 30.223	- / 12.023	- / 17.105	- / 16.800	- / 33.905	- / 46.206	- / 22.468	- / 12.568	- / 12.750	- / -	- / 205.978
Support (All Modification Items)												
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000
PMA - Other Gov't Costs	- / 0.040	- / 0.075	- / 0.065	- / 0.077	- / -	- / 0.077	- / 0.092	- / 0.092	- / 0.070	- / 0.071	- / -	- / 0.582
PMA - Contractor Services	- / 0.288	- / 1.080	- / 0.899	- / 1.162	- / -	- / 1.162	- / 2.731	- / 1.423	- / 0.825	- / 0.842	- / -	- / 9.250
<i>Subtotal: Support</i>	- / 0.328	- / 1.155	- / 0.964	- / 1.239	- / -	- / 1.239	- / 2.823	- / 1.515	- / 0.895	- / 0.913	- / -	- / 9.832
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	36.163	31.378	12.987	18.344	16.800	35.144	49.029	23.983	13.463	13.663	-	215.810

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Exhibit P-3a, Individual Modification: PB 2021 Air Force						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6			P-1 Line Item Number / Title: 846080 / DCGS-AF			Modification Number / Title: 3 / Multi-Intelligence (Multi-INT)	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 1: Multi-Int Upgrades							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Air Force		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6	P-1 Line Item Number / Title: 846080 / DCGS-AF	Modification Number / Title: 4 / Network Infrastructure Transformation

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	133.284	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361	-	503.336
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	133.284	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361	-	503.336
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	133.284	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361	-	503.336

(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:

Network Infrastructure Transformation: Modernizes the AF DCGS infrastructure to a cyber-resilient, open, scalable, commercial-based, architecture, improving data ingest, transfer and storage capabilities, collaboration, and content driven discovery. OA DCGS Platform as a Service, along with migration to a hub-based architecture and public cloud represents the AF DCGS hybrid cloud (mix of private on premise and public cloud) architecture.

Justification:

AF DCGS's Network Infrastructure Transformation program's main focus is the procurement and fielding of proven open, scalable infrastructure backbone, technologies for network communications, centralized storage of analyst produced multi-INT intelligence products, communication modernization, demilitarized zone, weapon system trainer, and addresses diminishing manufacturing sources (DMS) weapons system issues. This program will continue to deliver an integrated net-centric upgrade to the network communications infrastructure and address any other DMS issues with legacy systems/components that AF DCGS must interoperate/interface with. Additionally, upgrades will meet the operational need to store and disseminate new and/or improved sensor data, and enhance interoperability by migrating to an open architecture construct and improving data sharing ability in compliance with DoD direction.

Milestone/Development Status

AF DCGS is in the Operations and Sustainment phase of the acquisition lifecycle. The weapon system has been declared FOC, and all modifications are being implemented in accordance with AFI 63-101.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AF	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	163.418	22.993	13.466	-	13.466	23.118	20.252	40.644	41.361
AFNG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	44.800	-	0.000	-	0.000	0.000	0.000	0.000	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361

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Exhibit P-3a, Individual Modification: PB 2021 Air Force										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6					P-1 Line Item Number / Title: 846080 / DCGS-AF					Modification Number / Title: 4 / Network Infrastructure Transformation			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: 0305208F				Modification Type: Reliability & Maintainability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Network Infrastructure													
B Kits													
Recurring													
Network Infrastructure:EQUIPMENT Group B (Active)	0 / 119.655	- / 156.531	- / 21.340	- / 12.502	- / -	- / 12.502	- / 21.810	- / 19.150	- / 38.440	- / 39.112	- / -	0 / 428.540	
Network Infrastructure:EQUIPMENT Group B (Guard)	0 / 10.600	- / 44.800	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	0 / 55.400	
<i>Subtotal: Recurring</i>	- / 130.255	- / 201.331	- / 21.340	- / 12.502	- / -	- / 12.502	- / 21.810	- / 19.150	- / 38.440	- / 39.112	- / -	- / 483.940	
<i>Subtotal: Network Infrastructure</i>	- / 130.255	- / 201.331	- / 21.340	- / 12.502	- / -	- / 12.502	- / 21.810	- / 19.150	- / 38.440	- / 39.112	- / -	- / 483.940	
<i>Subtotal: Procurement, All Modification Items</i>	- / 130.255	- / 201.331	- / 21.340	- / 12.502	- / -	- / 12.502	- / 21.810	- / 19.150	- / 38.440	- / 39.112	- / -	- / 483.940	
Support (All Modification Items)													
GROUP B: TOTAL NONRECURRING	- / 0.000	- / 0.000	- / -	- / 0.000	- / -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / 0.000	
PMA - Other Gov't Costs	- / 0.222	- / 0.241	- / 0.146	- / 0.070	- / -	- / 0.070	- / 0.072	- / 0.072	- / 0.075	- / 0.077	- / -	- / 0.975	
PMA - Contractor Services	- / 2.807	- / 6.646	- / 1.507	- / 0.894	- / -	- / 0.894	- / 1.236	- / 1.030	- / 2.129	- / 2.172	- / -	- / 18.421	
<i>Subtotal: Support</i>	- / 3.029	- / 6.887	- / 1.653	- / 0.964	- / -	- / 0.964	- / 1.308	- / 1.102	- / 2.204	- / 2.249	- / -	- / 19.396	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	133.284	208.218	22.993	13.466	0.000	13.466	23.118	20.252	40.644	41.361	-	503.336	

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Exhibit P-3a, Individual Modification: PB 2021 Air Force					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6			P-1 Line Item Number / Title: 846080 / DCGS-AF			Modification Number / Title: 4 / Network Infrastructure Transformation	
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:			
Modification Item 1 of 1: Network Infrastructure							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Org/Intermediate					Installation Quantity: 0		

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F / 04 / 6 **P-1 Line Item Number / Title:** 846080 / DCGS-AF **Aggregated Items Title:** Support to DCGS Enterprise

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Support to DCGS Enterprise																				
Imagery Processing	A		-	-	-	-	-	3.652	-	-	3.752	-	-	3.495	-	-	-	-	-	3.495
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	3.652	-	-	3.752	-	-	3.495	-	-	-	-	-	3.495
Extended Tether Program	A		-	-	-	-	-	27.102	-	-	10.045	-	-	9.483	-	-	-	-	-	9.483
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	27.102	-	-	10.045	-	-	9.483	-	-	-	-	-	9.483
Wide Area Networks/ Networks	A		-	-	-	-	-	7.966	-	-	8.121	-	-	9.310	-	-	-	-	-	9.310
<i>Secondary Distribution</i>																				
AF			-	-	-	-	-	7.966	-	-	8.121	-	-	9.310	-	-	-	-	-	9.310
Subtotal: Support to DCGS Enterprise			-	-	-	-	-	38.720	-	-	21.918	-	-	22.288	-	-	-	-	-	22.288
Total			-	-	-	-	-	38.720	-	-	21.918	-	-	22.288	-	-	-	-	-	22.288

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 04: Other Base Maintenance and Support Equip / BSA 6: Special Support Projects	P-1 Line Item Number / Title: 846510 / Special Update Program
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	910.551	917.148	782.641	-	782.641	782.938	796.251	800.245	910.329	-	5,900.103
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	910.551	917.148	782.641	-	782.641	782.938	796.251	800.245	910.329	-	5,900.103
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	910.551	917.148	782.641	-	782.641	782.938	796.251	800.245	910.329	-	5,900.103

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

Description:

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

Justification:

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

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 05: Spares and Repair Parts / BSA 1: Spares And Repair Parts	P-1 Line Item Number / Title: 861350 / Spares and Repair Parts (Cyber)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	1.664	-	1.664	0.988	1.005	1.023	1.041	-	5.721
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	1.664	-	1.664	0.988	1.005	1.023	1.041	-	5.721
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	1.664	-	1.664	0.988	1.005	1.023	1.041	-	5.721

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

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

Description:

This program supports Cyberspace Activities
 Initial Spares consist of reparable components, assemblies, subassemblies, and consumable items required as initial stock (including readiness spares package requirements) in support of newly fielded vehicles, communications electronics and telecommunications equipment, and other base maintenance and support equipment items. Requirements are determined by applying established factors against the acquisition cost of the end items. The factors are based on historical data of similar equipment, employment/deployment concepts, production schedules, and other related information.

Starting in FY21 funding for PE 0303140F, Information Systems Security Program (ISSP) Initial Spares moved from 861900 to 861350.

Justification:

Information Systems Security Program (ISSP): FY21 funding (\$1.664M) is required to support Vinson/ANDVT Cryptographic Modernization (VACM), Air and Ground (A&G), and Key Management Enterprise (KME) which supplies crypto devices to all Services/ Agencies to meet an NSA cybersecurity mandate for warfighter air and ground radio networks.

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

Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 05: Spares and Repair Parts / BSA 1: Spares And Repair Parts	P-1 Line Item Number / Title: 861900 / Spares and Repair Parts
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	93.965	85.715	15.847	4.000	19.847	42.231	26.968	16.454	16.714	-	301.894
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	93.965	85.715	15.847	4.000	19.847	42.231	26.968	16.454	16.714	-	301.894
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	93.965	85.715	15.847	4.000	19.847	42.231	26.968	16.454	16.714	-	301.894

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

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

Description:

This program supports Cyberspace Activities

Initial Spares consist of reparable components, assemblies, subassemblies, and consumable items required as initial stock (including readiness spares package requirements) in support of newly fielded vehicles, communications electronics and telecommunications equipment, and other base maintenance and support equipment items. Requirements are determined by applying established factors against the acquisition cost of the end items. The factors are based on historical data of similar equipment, employment/deployment concepts, production schedules, and other related information.

The following Major Defense Acquisition Program (MDAP) has funding in this line:

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

Appropriation / Budget Activity / Budget Sub Activity:
3080F: Other Procurement, Air Force / BA 05: Spares and Repair Parts / BSA 1: Spares And Repair Parts

P-1 Line Item Number / Title:
861900 / Spares and Repair Parts

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-18	Spares and Repair Parts				- / -	- / 93.965	- / 85.715	- / 15.847	- / 4.000	- / 19.847
P-40	Total Gross/Weapon System Cost				- / -	- / 93.965	- / 85.715	- / 15.847	- / 4.000	- / 19.847

Title represents the P-18 Title for Spares.

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

Justification:
 ATCALs: FY21 funding (\$1.451M) is required to support the Digital Air Traffic Control Radio (\$994K) and the Fixed Base Precision Approach Radar (\$457K) programs. Required initial spares are a combination of complete assemblies, subassemblies, or in special circumstances piece-part items. Selection is based on the Interim Support Items List, historical data from similar systems or components, and/or sparing models and are sized to ensure system availability requirements are met.

Combat Training Range Equipment: FY21 funds (\$8.250M) spare parts and equipment to support fielding of Joint Threat Emitters and Advanced Radar Threat System Variant 2. Spares include replacement components, equipment and parts.

Expeditionary Airfield Basing Assets: FY21 funds (2.268) mission readiness support kits for War Reserve Material (WRM) Unit Type Codes (UTC). These support kits include necessary components to ensure proper operation of equipment within UTC package. These UTC kits packages, but are not limited to, Power Production, Feeding, Water Production, Billeting, Maintenance Facilities, and HVAC. Also, mission essential spare parts are procured utilizing this funding.

Expeditionary Airfield Basing Assets: FY21 European Defense Initiative (EDI) OCO funds (4.000) mission readiness support kits for War Reserve Material (WRM) Unit Type Codes (UTC). These support kits include necessary components to ensure proper operation of equipment within UTC package. These UTC kits packages, but are not limited to, Power Production, Feeding, Water Production, Billeting, Maintenance Facilities, and HVAC. Also, mission essential spare parts are procured utilizing this funding.

This program supports Cyberspace Activities

Information Systems Security Program (ISSP): Starting in FY21 funding for PE 0303140F, Information Systems Security Program (ISSP) Initial Spares moved from 861900 to 861350.

Minimum Essential Emergency Comm Network (MEECN): FY20 funding (68.795) is required to support Global ASNT Increment 1 fixed and transportable terminals to meet the high threshold Operational Availability (Ao) Key Performance Parameter (KPP) outlined in the Global ASNT Capability Development Document (CDD). These spares need to be procured at the same time as production terminals in order to support terminal fielding. Additionally, this program has overarching diminishing manufacturing sources (DMS) requirements and will use procurement funding to address these requirements.

Wide Area Surveillance (WAS): FY21 funding (\$1.904) is required to support operational WAS Stateside Affordable Radar System (STARS) sites. These spares and repair parts are uniquely site-specific, critical items required to be completed while the initial manufacturing line is set up for each individual fielding location.

Deployable C3: FY21 funding (\$1.986M) is required to support initial spares for the Flexible Communications Package (FCP) being incorporated into the Joint Task Force (JTF). These spares and repair parts are unique and critical items required to be available for each individual fielding location.

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Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2021 Air Force					Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 05 / 1		P-1 Line Item Number / Title: 861900 / Spares and Repair Parts			Title: Spares and Repair Parts	
End Item Line Item Number / Name [MDAP/MAIS]	Prior Years <i>(\$ M)</i>	FY 2019 <i>(\$ M)</i>	FY 2020 <i>(\$ M)</i>	FY 2021 Base <i>(\$ M)</i>	FY 2021 OCO <i>(\$ M)</i>	FY 2021 Total <i>(\$ M)</i>
Initial						
BA 05 - Spares and Repair Parts						
861900 / Air Traffic Control, Approach, and Landing System (ATCALs)	-	1.074	1.394	1.451	0.000	1.451
861900 / Combat Training Range Equipment	-	14.035	2.322	8.241	0.000	8.241
861900 / Deployable C3 Systems	-	1.986	1.985	1.983	0.000	1.983
861900 / Expeditionary Airfield Basing Assets	-	2.193	2.232	2.268	4.000	6.268
861900 / Information Systems Security Program	-	0.937	1.605	0.000	0.000	0.000
861900 / Manned Reconnaissance Systems	-	-	4.375	0.000	0.000	0.000
861900 / Minimum Essential Emergency Communications Network (MEECN)	-	73.740	68.795	0.000	0.000	0.000
861900 / Wide Area Surveillance Spares	-	0.000	3.007	1.904	0.000	1.904
Subtotal: Initial	-	93.965	85.715	15.847	4.000	19.847
Total Cost (Initial + Replenishment)	-	93.965	85.715	15.847	4.000	19.847

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