Department of Defense
Fiscal Year (FY) 2024 Budget Estimates

March 2023

Air Force

Justification Book Volume 1 of 1

Procurement, Space Force

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Table of Volumes

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Volume 1 Table of Contents

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Appropriation Language
Fiscal Year (FY) 2024 President's Budget
Procurement, Space Force

For construction, procurement, and modification of spacecraft, launch services, spares, and related equipment (including ground control and communication equipment) and training devices; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents and transportation of things; $4,714,294,000 to remain available for obligations until September 30, 2026.

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Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force

Line No	Item Nomenclature	Ident Code	Sec	FY 2022 Actuals Quantity	FY 2022 Actuals Cost	FY 2023 Less Supplementals Enactment Quantity	FY 2023 Less Supplementals Enactment Cost	FY 2023 Supplementals Enactment Quantity	FY 2023 Supplementals Enactment Cost*
Budget Activity 01: SPACE PROCUREMENT, SF									
Space Procurement, SF									
1	AF Satellite Comm System	A	U		39,655		45,963		
2	Cancelled Year Adjustments	A	U		1				
3	Counterspace Systems	A	U		64,804		60,241		
4	Family of Beyond Line-of-Sight Terminals	A	U		36,544		16,144		
5	FABT FORCE ELEMENT TERMINAL	A	U						
6	Wideband Gapfiller Satellites(Space)	A	U			1	463,982		
7	General Information Tech - Space	A	U		3,316		5,424		
8	GPSIII Follow On	A	U	3	835,176	2	616,962		
9	GPS III Space Segment	A	U		84,452		103,340		
10	Global Postioning (Space)	A	U		2,274		950		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force				FY 2023 Total Enactment		FY 2024 Request	
Line No	Item Nomenclature	Ident Code	Sec	Quantity	Cost	Quantity	Cost
	Budget Activity 01: SPACE PROCUREMENT, SF						
	Space Procurement, SF						
1	AF Satellite Comm System	A	U		45,963		64,345
2	Cancelled Year Adjustments	A	U				
3	Counterspace Systems	A	U		60,241		52,665
4	Family of Beyond Line-of-Sight Terminals	A	U		16,144		25,057
5	FABT FORCE ELEMENT TERMINAL	A	U				121,634
6	Wideband Gapfiller Satellites(Space)	A	U	1	463,982		
7	General Information Tech - Space	A	U		5,424		3,451
8	GPSIII Follow On	A	U	2	616,962	0	119,700
9	GPS III Space Segment	A	U		103,340		121,770
10	Global Postioning (Space)	A	U		950		893

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force

Line No	Item Nomenclature	Ident Code	Sec	FY 2022 Actuals Quantity	FY 2022 Actuals Cost	FY 2023 Less Supplementals Enactment Quantity	FY 2023 Less Supplementals Enactment Cost	FY 2023 Supplementals Enactment Quantity	FY 2023 Supplementals Enactment Cost*
11	HERITAGE TRANSITION	A	U		13,529		21,896		
12	Joint Tactical Ground Stations	A	U						
13	Spaceborne Equip (Comsec)	A	U		46,945		29,587		
14	MILSATCOM	A	U		24,333		29,333		
15	SBIR High (Space)	A	U		154,526		148,666		
16	Special Space Activities	A	U		131,488		871,054		
17	Mobile User Objective System	A	U		45,371		46,833		
18	National Security Space Launch	A	U	5	1,287,347	3	1,024,803		
19	NUDET Detection System	A	U		6,690		7,062		
20	PTES HUB	A	U		7,406	6	42,464		
21	Rocket Systems Launch Program	A	U		30,429		39,145		
22	Space Development Agency Launch	A	U			7	746,288		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force			FY 2023 Total Enactment		FY 2024 Request	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost
11	HERITAGE TRANSITION	A	U		21,896		6,110
12	Joint Tactical Ground Stations	A	U				580
13	Spaceborne Equip (Comsec)	A	U		29,587		83,168
14	MILSATCOM	A	U		29,333		44,672
15	SBIR High (Space)	A	U		148,666		39,438
16	Special Space Activities	A	U		871,054		840,913
17	Mobile User Objective System	A	U		46,833		101,147
18	National Security Space Launch	A	U	3	1,024,803	10	2,142,846
19	NUDET Detection System	A	U		7,062		
20	PTES HUB	A	U	6	42,464	12	56,482
21	Rocket Systems Launch Program	A	U		39,145		74,848
22	Space Development Agency Launch	A	U	7	746,288	5	529,468

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force			FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code / Sec	Quantity	Cost	Quantity	Cost	Quantity	Cost*
23	Space Mods	A / U		56,325		68,257		
24	Spacelift Range System Space	A / U		93,773		71,712		
Total	**SPACE PROCUREMENT, SF**		**8**	**2,964,384**	**19**	**4,460,106**		
	Budget Activity 02: SPARES							
	Spares							
25	Spares and Repair Parts	A / U		1,282		1,352		
Total	**SPARES**			**1,282**		**1,352**		
	Budget Activity 04: Other Base Maintenance and Support Equipment							
	Support Equipment							
26	Power Conditioning Equipment	A / U						
Total	**Other Base Maintenance and Support Equipment**							
Total	**Procurement, Space Force**		**8**	**2,965,666**	**19**	**4,461,458**		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail
(Dollars in Thousands)

Mar 2023

Appropriation: 3022 Procurement, Space Force			FY 2023 Total Enactment	FY 2024 Request
Line	Ident	Se		

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F Detail

Mar 2023

(Dollars in Thousands)

No	Item Nomenclature	Code	c	Quantity	Cost	Quantity	Cost
23	Space Mods	A	U		68,257		166,596
24	Spacelift Range System Space	A	U		71,712		114,505
Total	**SPACE PROCUREMENT, SF**			**19**	**4,460,106**	**27**	**4,710,288**
Budget Activity 02: SPARES							
Spares							
25	Spares and Repair Parts	A	U		1,352		906
Total	**SPARES**				**1,352**		**906**
Budget Activity 04: Other Base Maintenance and Support Equipment							
Support Equipment							
26	Power Conditioning Equipment	A	U				3,100
Total	**Other Base Maintenance and Support Equipment**						**3,100**
Total	**Procurement, Space Force**			**19**	**4,461,458**	**27**	**4,714,294**

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

Appropriation 3022F: Procurement, Space Force

Appropriation 3022F: Procurement, Space Force

Appropriation 3022F: Procurement, Space Force

Appropriation 3022F: Procurement, Space Force

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

Department of the Air Force
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
3022F BA Summary
(Dollars in Thousands)

Mar 2023

Appropriation: **Procurement, Space Force**

	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment	FY 2024 Request
Budget Activity					
01. SPACE PROCUREMENT, SF	2,964,384	4,460,106		4,460,106	4,710,288
02. SPARES	1,282	1,352		1,352	906
04. Other Base Maintenance and Support Equipment					3,100
Total Procurement, Space Force	**2,965,666**	**4,461,458**		**4,461,458**	**4,714,294**

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328)

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P-1M MODIFICATION REPORT – 2024 PB

03/22/2023

WEAPON SYSTEM	CLASS	MOD NR	MODIFICATION TITLE	PRIOR	FY-22	FY-23	FY-24	FY-24 OCO	Total FY-24	FY-25	FY-26	FY-27	FY-28	COST TO GO	TOTAL PROG
HRTG00	P	HTRG1	Heritage Transition		13.5	21.9	6.1		6.1	13.3	10.2	9.0	9.2		83.2
TOTAL FOR CLASS P					13.5	21.9	6.1		6.1	13.3	10.2	9.0	9.2		83.2
TOTAL FOR OTHER HRTG00					13.5	21.9	6.1		6.1	13.3	10.2	9.0	9.2		83.2

Totals may not add due to rounding
TOTAL PROG includes Prior Year and Cost To Go Dollars

P-1M MODIFICATION REPORT – 2024 PB

03/22/2023

WEAPON SYSTEM	CLASS	MOD NR	MODIFICATION TITLE	PRIOR	FY-22	FY-23	FY-24	FY-24 OCO	Total FY-24	FY-25	FY-26	FY-27	FY-28	COST TO GO	TOTAL PROG
SPAF SBIRS Mobile System and Fixed Comm Electronics Upgrades	P	SPAF	SBIRS Mobile System & Fixed Comm Electronics Upgrades	19.3	8.1	42.3	29.2		29.2						98.8
TOTAL FOR CLASS P				19.3	8.1	42.3	29.2		29.2						98.8
TOTAL FOR OTHER SPAF SBIRS Mobile System and Fixed Comm Electronics Upgrades				19.3	8.1	42.3	29.2		29.2						98.8

Totals may not add due to rounding
TOTAL PROG includes Prior Year and Cost To Go Dollars

P-1M MODIFICATION REPORT – 2024 PB

03/22/2023

WEAPON SYSTEM	CLASS	MOD NR	MODIFICATION TITLE	PRIOR	FY-22	FY-23	FY-24	FY-24 OCO	Total FY-24	FY-25	FY-26	FY-27	FY-28	COST TO GO	TOTAL PROG
MUOS00		MUOS1	Mobile User Objective System		45.4	46.8	101.1		101.1	48.9	49.9	51.1	52.2		395.5
TOTAL FOR CLASS					45.4	46.8	101.1		101.1	48.9	49.9	51.1	52.2		395.5
TOTAL FOR OTHER MUOS00					45.4	46.8	101.1		101.1	48.9	49.9	51.1	52.2		395.5

Totals may not add due to rounding
TOTAL PROG includes Prior Year and Cost To Go Dollars

P-1M MODIFICATION REPORT – 2024 PB

03/22/2023

WEAPON SYSTEM	CLASS	MOD NR	MODIFICATION TITLE	PRIOR	FY-22	FY-23	FY-24	FY-24 OCO	Total FY-24	FY-25	FY-26	FY-27	FY-28	COST TO GO	TOTAL PROG
1203165SF		NAVSTAR-1	NAVSTAR GPS-OCS COTS UPGRADE		0.1	1.4									1.5
TOTAL FOR CLASS					0.1	1.4									1.5
TOTAL FOR OTHER 1203165SF					0.1	1.4									1.5

Totals may not add due to rounding
TOTAL PROG includes Prior Year and Cost To Go Dollars

P-1M MODIFICATION REPORT – 2024 PB

03/22/2023

WEAPON SYSTEM	CLASS	MOD NR	MODIFICATION TITLE	PRIOR	FY-22	FY-23	FY-24	FY-24 OCO	Total FY-24	FY-25	FY-26	FY-27	FY-28	COST TO GO	TOTAL PROG
CCSMP	P	10.3	Counter Communications System (CCS) Meadowlands Production	43.6	59.8	55.0	50.6		50.6	4.2	2.0	2.1	2.1		219.4
TOTAL FOR CLASS P				43.6	59.8	55.0	50.6		50.6	4.2	2.0	2.1	2.1		219.4
TOTAL FOR OTHER CCSMP				43.6	59.8	55.0	50.6		50.6	4.2	2.0	2.1	2.1		219.4

Totals may not add due to rounding
TOTAL PROG includes Prior Year and Cost To Go Dollars

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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
EWAISP	- Electronic Warfare Avionics Integration Support Facility
FLIR	- Forward Looking Infra Red

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
OOC	- Overseas Operations Costs
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
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 ACRONYMNS

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

AFPSL	- AF Primary Standards Lab
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

CONTRACT METHOD / TYPE ACRONYMNS

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 ACRONYMNS

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
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 SFB, 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 SFB, 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

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** AFSCOM / AF Satellite Comm System
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	39.655	45.963	64.345	-	64.345	68.240	69.493	54.929	56.080	-	398.705
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	39.655	45.963	64.345	-	64.345	68.240	69.493	54.929	56.080	-	398.705
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**39.655**	**45.963**	**64.345**	**-**	**64.345**	**68.240**	**69.493**	**54.929**	**56.080**	**-**	**398.705**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Satellite Control Network (SCN), is a satellite ground terminal network comprised of two communication nodes (Schriever SFB & Vandenberg SFB) and 15 antenna systems. The systems are distributed globally at seven locations -- Vandenberg Tracking Station (VTS), Diego Garcia Station (DGS), Guam Tracking Station (GTS), Hawaii Tracking Station (HTS), New Hampshire Tracking Station (NHS), Thule Tracking Station (TTS), and Telemetry and Commanding Station (TCS) at RAF Oakhanger, England -- to ensure global coverage for over 170 satellites in various orbits operating in a congested and contested environment. The SCN conducts an average of 450+ daily satellite contacts supporting Positioning, Navigation and Timing (PNT), Intelligence, Surveillance and Reconnaissance (ISR), Missile Warning and Missile Defense, Communications, Weather, Launch Vehicle Support, and Research and Development (R&D) satellites for Department of Defense (DoD), Intelligence Community (IC), and National Aeronautics and Space Administration (NASA) operations. While most of the 450+ daily satellite contacts are routine command and control (C2) activities, the SCN is also used during satellite emergencies (e.g. a tumbling satellite) because its high-power antennas are often the only terrestrial assets that can re-establish C2 with a non-responsive satellite.

During each Fiscal Year, the SCN typically supports multiple space vehicle emergencies resulting in the preservation of over 4B+ worth of satellites. In addition to routine and emergency satellite operations C2, the SCN provides support to launch and early orbit operations, ensuring worldwide telemetry during launch vehicle ascent, staging, and orbital insertion, and data transmit and receive for new satellites completing early orbit checkout. During each Fiscal Year, the SCN supports multiple launches delivering an average of 14B+ worth of satellites to their operational orbits. Finally, the SCN provides Factory Compatibility Testing (FCT) to ensure satellites and launch vehicles can communicate via the SCN before the satellite is launched. Funding is used to procure modernized equipment and provide Knowledge Based Services for the SCN to ensure capabilities are available to support DoD, Intelligence community, and civil users. Funds will also be used to address Diminishing Manufacturing Sources (DMS) issues, support Enterprise Ground Service (EGS), Commercial Augmentation, cybersecurity operations, and are planned to be used for required radome replacements. Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Additionally, the Space Force will use various contract vehicles to address the highest priority concerns/issues. Obsolescence and sustainment "worst actors" are prioritized annually in order of criticality to the mission. The potential for failed satellite contacts drives priority. Other projects include: Boundary Defense, Electronic Schedule Dissemination (ESD) obsolescence, (AF)SCN test bed (ATB) replacements, continued cyber defense work, network automation, and Range/Network/Communication obsolescence replacements.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: AFSCOM / AF Satellite Comm System	
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		

SCN Studies - provides vital analysis through a specified study with defined deliverables that include, but are not limited to, facilitating future planning, analyzing architecture alternatives, performing tradeoffs between alternative systems and architectures, and performing cost-benefit analysis.

SCN Knowledge-Based Services - provides Information Assurance (IA) and Test and Evaluation (T&E) expertise to evaluate system functionality and submit packages to Certifying Authorities to obtain Authorizations to Operate (ATO) or Interim Authorizations to Test (IATT); streamlines the validation process and enhances the overall effectiveness of the single Space Force Security Control Assessor (SCA); provides Technical and Acquisition support to integrate new systems and services into SSC programs, gain support for new and on-going efforts in all phases of the acquisition life cycle and standardize systems engineering processes.

SCN Services - provides software configuration services for SSC to include updating and maintaining data to support evolving changes to the configuration management and data management practices.

SCN Replenishment Spares - procures spares for developed systems under the sustainment contract, and transitions to government supply to support the maintenance and sustainment of the SCN.

Funding for this exhibit contained in PE 1203110SF.

These requirements and modifications support performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** AFSCOM / AF Satellite Comm System
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	AF Satellite Comm System		A		- / -	- / 39.655	- / 45.963	- / 64.345	- / -	- / 64.345
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 39.655**	**- / 45.963**	**- / 64.345**	**- / -**	**- / 64.345**

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

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

Justification:
The increase of 12.6M from FY 2023 to FY 2024 is to accelerate the Modular Transitional Remote Tracking Station (MTR) acquisition, preventing a decrease in operational capability of the already obsolete and unsustainable Automated Remote Tracking Station (ARTS) system.

1) SCN Studies (P-5) - FY 2024 funding provides studies that address future planning needs. Studies will also provide critical analysis of architecture alternatives and cyber security requirements.

2) SCN Knowledge-Based Services (P-5) - FY 2024 funding provides critical support to the SSC / SCN missions by maintaining the technical baseline, systems engineering, Information Assurance, cybersecurity analysis, expertise and recommendations.

3) SCN Services (P-5) - FY 2024 funding provides configuration and data management of the SCN baselines, specifications, drawing, notice of revisions, specification change notices, configuration control, configuration status accounting, configuration audits, and configuration identification.

4) SCN Commodity Procurement (P-5) - FY 2024 funds are critical for the procurement of the MTR at GTS & VTS. MTR enables scalability for satellite vehicle contact demand, accelerates remote "lights out" operations and improves survivability due to more resilient Tracking, Telemetry and Control (TT&C) systems, providing the ability to reconstitute rapidly. MTR technology includes software-defined radios and provides significant scalability and flexibility, addresses obsolescence while adding resiliency. This capability is software defined and therefore adaptable to any antenna including legacy dish antennas, new dish antennas, or phased array antennas - all on a single core electronic baseline that is more cyber secure.

Additionally, FY 2024 funds are planned for commodity procurement efforts to address critical cyber security upgrades IAQ the guidance provided in the Presidential Executive Order 14028 Improving the Nation's Cybersecurity, National Security Memorandum 8 Improving the Cybersecurity of National Security, Department of Defense, and Intelligence Community Systems, and Office of Management and Budget M-22-09 Moving the U.S. Government Toward Zero Trust Cybersecurity Principles.

MTR enables scalability for satellite vehicle contact demand, accelerates remote "lights out" operations and improves survivability due to more resilient Tracking, Telemetry and Control (TT&C) systems, providing the ability to reconstitute rapidly. MTR technology includes software-defined radios and provides significant scalability and flexibility, addresses obsolescence while adding resiliency. This capability is software defined and therefore adaptable to any antenna including legacy dish antennas, new dish antennas, or phased array antennas - all on a single core electronic baseline that is more cyber secure

5) SCN Replenishment Spares (P-5) - FY 2024 funds the replenishment sparing for systems in sustainment, ensuring SCN users have the required spares in place to support their systems. These funds are required as the source of supply for any items associated with the weapon system, providing levels for consumable and reparable spares, and ensures the system will have the parts to initiate repair. In addition, funds procure the most urgently needed capital equipment replacements for items that exceed the O&M dollar threshold. This equipment replaces items such as, but not limited to, processors, archival event recorders, and Diminishing Manufacturing Sources and Material Shortages (DMSMS), and timing systems, of which these items are at the top of the sustainers "worst actors" list and account for significant maintenance effort, down time, and lost or failed contacts.

Additionally, FY 2024 funding will allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** AFSCOM / AF Satellite Comm System	
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		

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** AFSCOM / AF Satellite Comm System	**Item Number / Title [DODIC]:** AF Satellite Comm System
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	39.655	45.963	64.345	-	64.345
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	39.655	45.963	64.345	-	64.345
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**39.655**	**45.963**	**64.345**	**-**	**64.345**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Satellite Control Network Cost																		
Non Recurring Cost																		
Commodity Procurements	-	-	-	-	-	0.605	-	-	5.420	-	-	5.050	-	-	-	-	-	5.050
Modularized Transitional Remote Tracking Station (RTS) (MTR)	-	-	-	-	-	25.866	-	-	26.126	-	-	44.111	-	-	-	-	-	44.111
Subtotal: Non Recurring Cost	-	-	-	-	-	*26.471*	-	-	*31.546*	-	-	*49.161*	-	-	-	-	-	*49.161*
Subtotal: Hardware - AF Satellite Control Network Cost	**-**	**-**	**-**	**-**	**-**	***26.471***	**-**	**-**	***31.546***	**-**	**-**	***49.161***	**-**	**-**	**-**	**-**	**-**	***49.161***
Logistics - AF Satellite Comm System Cost																		
Recurring Cost																		
Studies	-	-	-	-	-	1.214	-	-	0.250	-	-	0.250	-	-	-	-	-	0.250
Knowledge-Based Services	-	-	-	-	-	11.816	-	-	12.979	-	-	11.268	-	-	-	-	-	11.268
Replenishment Spares	-	-	-	-	-	-	-	-	0.000	-	-	3.500	-	-	-	-	-	3.500
Subtotal: Recurring Cost	-	-	-	-	-	*13.030*	-	-	*13.229*	-	-	*15.018*	-	-	-	-	-	*15.018*
Subtotal: Logistics - AF Satellite Comm System Cost	**-**	**-**	**-**	**-**	**-**	***13.030***	**-**	**-**	***13.229***	**-**	**-**	***15.018***	**-**	**-**	**-**	**-**	**-**	***15.018***
Support - AF Satellite Comm System Cost																		
Services	-	-	-	-	-	0.154	-	-	1.188	-	-	0.166	-	-	-	-	-	0.166

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: AFSCOM / AF Satellite Comm System	Item Number / Title [DODIC]: AF Satellite Comm System
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Subtotal: Support - AF Satellite Comm System Cost	-	-	-	-	-	***0.154***	-	-	***1.188***	-	-	***0.166***	-	-	-	-	-	***0.166***
Gross/Weapon System Cost	-	-	-	-	-	**39.655**	-	-	**45.963**	-	-	**64.345**	-	-	-	-	-	**64.345**

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1206421SF / **Other Related Program Elements:** 1206421F
Line Item MDAP/MAIS Code: N/A	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	43.619	64.804	60.241	52.665	-	52.665	4.270	2.056	2.109	2.153	-	231.917
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.619	64.804	60.241	52.665	-	52.665	4.270	2.056	2.109	2.153	-	231.917
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.619**	**64.804**	**60.241**	**52.665**	**-**	**52.665**	**4.270**	**2.056**	**2.109**	**2.153**	**-**	**231.917**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Counter Communications System (CCS) Pre-planned Product Improvement (P3I) program provides expeditionary, deployable, reversible offensive space control (OSC) effects applicable across the full spectrum of conflict. It prevents adversary satellite communications (SATCOM) in the Area of Responsibility (AOR) including Command and Control (C2), Early Warning, and Propaganda; and hosts Rapid Reaction Capabilities in response to Urgent Needs. Acquisition Decision Memorandum (24 April 2009) directed all capabilities identified in the October 2006 CCS Block 20, Joint Requirements Oversight Council (JROC) approved Capability Development Document (CDD) shall be accomplished as P3I upgrades to the CCS Block 10.

Funding for this exhibit is in Program Element (PE) 1206421SF, Counterspace Systems. Developmental funding for CCS is in PE 1206421SF, Project 65A001 Counter Satellite Communications System.

Bounty Hunter (BH) is a ground-based, deployable, tactical space Electronic Warfare Support system (ES) that provides SATCOM geolocation and interference detection capabilities that support the Defensive Space Control of US systems in a specific AOR. BH provides the capability to monitor, detect, characterize and geolocate friendly and unfriendly electro-magnetic interference (EMI) across multiple radio frequency bands in support of Command, Control, Communications, Computers, and Intelligence (C4I) systems by US Joint forces. Continuing annual procurement is needed to meet Combatant Command requirements in an ever changing threat environment.

The system was originally a response to Joint Urgent Operational Need. In 2013 AF Requirements Oversight Council directed incorporation of BH capabilities into a Program of Record. In March 2019 Bounty Hunter was designated as a Program of Record and reached Initial Operational Capability in August 2020.

Developmental funding for BH is in PE 1206421SF, Counterspace Systems, Project 65A013 Bounty Hunter.

The FY 2024 funding request was reduced by -$16.109M to account for the availability of prior year execution balances.

Space acquisition must respond with speed and agility to emerging adversary threats. The Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1206421SF / **Other Related Program Elements:** 1206421F
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	10.3 / Counter Communications System (CCS) Meadowlands Production (Capability Improvement)		B		- / 43.619	- / 59.793	- / 54.954	- / 50.565	- / 0.000	- / 50.565
P-5	Counterspace Systems		A		- / 0.000	1 / 5.011	1 / 5.287	- / 2.100	- / -	- / 2.100
P-40	**Total Gross/Weapon System Cost**				**- / 43.619**	**- / 64.804**	**- / 60.241**	**- / 52.665**	**- / -**	**- / 52.665**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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	10.3 / Counter Communications System (CCS) Meadowlands Production (Capability Improvement)		B		- / 4.241	- / 2.040	- / 2.090	- / 2.132	- / -	- / 219.434
P-5	Counterspace Systems		A		- / -	- / -	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 4.270**	**- / 2.056**	**- / 2.109**	**- / 2.153**	**- / -**	**- / 231.917**

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

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

Justification:
FY 2024 funding is for the production of seven CCS Meadowlands systems (includes signal processing, radio frequency, phototonic, and other communications equipment), remote operations suites, mission emulators, training equipment, and associated spares. Continue antenna production of the Meadowlands production systems. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, etc.

Bounty Hunter (BH): No FY 2024 funding requested

Efforts with funding starting in FY 2025 through FY 2028 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 2025 Cost Delta: 0.029 million
(b) FY 2026 Cost Delta: 0.016 million
(c) FY 2027 Cost Delta: 0.019 million
(d) FY 2028 Cost Delta: 0.021 million
(e) FY Total Cost Delta: 12.483 million

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems	**Modification Number / Title:** 10.3 / Counter Communications System (CCS) Meadowlands Production

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	43.619	59.793	54.954	50.565	0.000	50.565	4.241	2.040	2.090	2.132	-	219.434
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.619	59.793	54.954	50.565	0.000	50.565	4.241	2.040	2.090	2.132	-	219.434
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.619**	**59.793**	**54.954**	**50.565**	**0.000**	**50.565**	**4.241**	**2.040**	**2.090**	**2.132**	**-**	**219.434**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Counter Communications System (CCS) Pre-planned Product Improvement (P3I) program provides expeditionary, deployable, reversible offensive space control (OCS) effects applicable across the full spectrum of conflict. It prevents adversary satellite communications (SATCOM) in the Area of Responsibility (AOR) including Command and Control (C2), Early Warning, and Propaganda; and hosts Rapid Reaction Capabilities in response to Urgent Needs. Acquisition Decision Memorandum (24 April 2009) directed all capabilities identified in the October 2006 CCS Block 20, Joint Requirements Oversight Council (JROC) approved Capability Development Document (CDD) shall be accomplished as P3I upgrades to the CCS Block 10.

Funding for this exhibit is in Program Element (PE) 1206421SF, Counterspace Systems. Developmental funding for CCS is in PE 1206421SF, Project 65A001 Counter Satellite Communications System.

Milestone/Development Status

Authority to Proceed - 1QFY22; IBR Phase 2 2QFY22; CLIN 200 Begin - 3QFY22; GFE PICKUP - 4QFY22; Developmental / Operational Test - 2QFY23; Deliveries Begin - 4QFY23; CLIN 300 Begin - 3QFY23

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems	**Modification Number / Title:** 10.3 / Counter Communications System (CCS) Meadowlands Production
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: 10.3	**Modification Type:** Capability Improvement	**Related RDT&E PEs:** 1206421F

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: Hardware End Item												
B Kits												
Recurring												
Hardware End Item:EQUIPMENT Group B (Active)	5 / 43.358	7 / 59.013	7 / 53.163	7 / 46.652	- / -	7 / 46.652	- / -	- / -	- / -	- / -	- / -	26 / 202.186
Subtotal: Recurring	*- / 43.358*	*- / 59.013*	*- / 53.163*	*- / 46.652*	*- / -*	*- / 46.652*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 202.186*
Subtotal: Hardware End Item	*- / 43.358*	*- / 59.013*	*- / 53.163*	*- / 46.652*	*- / -*	*- / 46.652*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 202.186*
Subtotal: Procurement, All Modification Items	*- / 43.358*	*- / 59.013*	*- / 53.163*	*- / 46.652*	*- / -*	*- / 46.652*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 202.186*
Support *(All Modification Items)*												
FFRDC	- / -	- / -	- / 0.553	- / 0.564	- / -	- / 0.564	- / 0.575	- / 0.240	- / 0.245	- / 0.250	- / -	- / 2.427
A&AS	- / 0.261	- / 0.342	- / 0.344	- / 0.351	- / -	- / 0.351	- / 0.357	- / 0.278	- / 0.280	- / 0.285	- / -	- / 2.498
MOD OF SPARES	- / -	- / -	- / -	- / 2.200	- / -	- / 2.200	- / 2.497	- / 1.522	- / 1.565	- / 1.597	- / -	- / 9.381
Subtotal: Support	*- / 0.261*	*- / 0.342*	*- / 0.897*	*- / 3.115*	*- / -*	*- / 3.115*	*- / 3.429*	*- / 2.040*	*- / 2.090*	*- / 2.132*	*- / -*	*- / 14.306*
Installation												
Modification Item 1 of 1: Hardware End Item	- / -	4 / 0.438	8 / 0.894	7 / 0.798	- / -	7 / 0.798	7 / 0.812	- / -	- / -	- / -	- / -	26 / 2.942
Subtotal: Installation	*- / -*	*4 / 0.438*	*8 / 0.894*	*7 / 0.798*	*- / -*	*7 / 0.798*	*7 / 0.812*	*- / -*	*- / -*	*- / -*	*- / -*	*26 / 2.942*
Total												
Total Cost (Procurement + Support + Installation)	**43.619**	**59.793**	**54.954**	**50.565**	**0.000**	**50.565**	**4.241**	**2.040**	**2.090**	**2.132**	**-**	**219.434**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems	**Modification Number / Title:** 10.3 / Counter Communications System (CCS) Meadowlands Production

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

Modification Item 1 of 1: Hardware End Item

Manufacturer Information

Manufacturer Name: L3Harris	Manufacturer Location: Palm Bay, FL
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Jan 2022	Jan 2023	Jan 2024				
Delivery Dates	Oct 2022	Oct 2023	Oct 2024				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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	- / -	4 / 0.438	1 / 0.110	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.548
FY 2022	- / -	- / -	7 / 0.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.784
FY 2023	- / -	- / -	- / -	7 / 0.798	- / -	7 / 0.798	- / -	- / -	- / -	- / -	- / -	7 / 0.798
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.812	- / -	- / -	- / -	- / -	7 / 0.812
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	4 / 0.438	8 / 0.894	7 / 0.798	- / -	7 / 0.798	7 / 0.812	- / -	- / -	- / -	- / -	26 / 2.942

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				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	-	2	2	2	2	2	2	2	1	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	0	26
Out	0	-	-	-	-	-	-	-	-	-	-	5	2	5	2	5	-	6	1	-	-	-	-	-	-	-	-	-	-	0	26

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** CTRSPC / Counterspace Systems	**Item Number / Title [DODIC]:** Counterspace Systems
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	1	1	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	5.011	5.287	2.100	-	2.100
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	5.011	5.287	2.100	-	2.100
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**5.011**	**5.287**	**2.100**	**-**	**2.100**
(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)*	-	5.011	5.287	-	-	-

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - Counterspace Systems Cost																		
Recurring Cost																		
Procure Bounty Hunter	-	-	0.000	5.011	1	5.011	5.193	1	5.193	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*5.011*	-	-	*5.193*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Counterspace Systems Cost	**-**	**-**	***0.000***	**-**	**-**	***5.011***	**-**	**-**	***5.193***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Counterspace Systems Cost																		
Non Recurring Cost	-	-	-	-	-	-	0.094	1	0.094	0.900	1	0.900	-	-	-	0.900	1	0.900
Subtotal: Support - Counterspace Systems Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.094***	**-**	**-**	***0.900***	**-**	**-**	**-**	**-**	**-**	***0.900***
Support - Counterspace Systems - BH Cost																		
Non-Recurring Cost	-	-	-	-	-	-	-	-	-	1.200	1	1.200	-	-	-	1.200	1	1.200
Subtotal: Support - Counterspace Systems - BH Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.200***	**-**	**-**	**-**	**-**	**-**	***1.200***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**5.011**	**1**	**5.011**	**5.287**	**1**	**5.287**	**-**	**-**	**2.100**	**-**	**-**	**-**	**-**	**-**	**2.100**

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203001SF	Other Related Program Elements: 0303001F, 0303601F, 1203001F
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	36.544	16.144	25.057	-	25.057	17.235	16.110	6.809	5.161	-	123.060
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	36.544	16.144	25.057	-	25.057	17.235	16.110	6.809	5.161	-	123.060
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**36.544**	**16.144**	**25.057**	**-**	**25.057**	**17.235**	**16.110**	**6.809**	**5.161**	**-**	**123.060**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) Command Post Terminals (CPT) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential and National Voice Conferencing (PNVC).

FAB-T CPT will provide this new, highly secure, state-of-the-art capability for DoD platforms to include strategic platforms and airborne/ground command posts via Milstar and Advanced EHF (AEHF) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar and AEHF satellite constellations. In June 2014, the Department of the Air Force down-selected to Raytheon for production of FAB-T CPT. Production contract options to produce CPT terminals were exercised after a successful Milestone C decision was approved September 1, 2015. In FY 2019, the FAB-T Program Management Office executed the final Low Rate Initial Production (LRIP) procurement to complete the total of 84 LRIP CPTs on contract. CPT has now procured 41 Ground Fixed, 20 Ground Transportable, and 23 Airborne Antennas. In FY 2024, FAB-T CPT will continue to pursue activities that ensure FAB-T CPT terminal interoperability with the full AEHF satellite constellation.

The PNVC capability is a critical element of the Nuclear Command, Control, and Communications (NC3) system. PNVC, as the Survivable Emergency Conferencing Network (SECN) replacement capability, provides anti-jam, anti-scintillation, survivable, and endurable voice communications through the AEHF satellite system for national and strategic users. Equipment upgrades required for this system include the development and production of several new components by other organizations, including the Baseband Interface Group (BIG) and Multi-Stream Summing Device (MSD III) for airborne users and the Baseband Kit (BBK) / PNVC Equipment enclosure for mobile users.

The PNVC Integrator is responsible for all program elements and funding, including those related to the Defense Information Systems Agency (DISA) and National Security Agency (NSA) components of the PNVC system, in accordance with the transfer directed in the FY 2018 National Defense Authorization Act, Sec. 1661. PNVC funds were transferred from DISA to the Department of the Air Force (DAF) beginning in FY 2021, and the PNVC Integrator will continue to procure remaining PNVC equipment until all fielding is complete. In October 2021, PNVC completed Milestone B/C.

FAB-T CPT was reflected in previous Program Exhibits in the Prior Years through FY 2014 - 2020. PNVC was reflected in previous Program Exhibits in the Prior Years through FY 2015 - 2020. Funding for this exhibit is contained in PE 1203001SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203001SF	Other Related Program Elements: 0303001F, 0303601F, 1203001F

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	Family of Beyond Line-of-Sight Terminals		B		- / -	- / 36.544	- / 16.144	- / 25.057	- / -	- / 25.057
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 36.544**	**- / 16.144**	**- / 25.057**	**- / -**	**- / 25.057**

*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 FY 2024, FAB-T CPT will continue to pursue activities that ensure CPT terminal interoperability with the full AEHF satellite constellation, deliver airborne terminals to aircraft depots, provide interim contractor support for the existing fielded terminals, operator training, and ramp up organic depot activation efforts in preparation for long-term hardware, software, and crypto sustainment.

In FY 2024, PNVC will continue to procure BBK enclosures and any remaining PNVC equipment required for fielding activities, and provide support capability for fielded units including interim contractor support and depot activation activities.

Activities may also include program office support, studies, technical analysis, prototyping, training, and mitigations to address Diminishing Manufacturing Sources and Material Shortages associated with production and fielding of the AEHF family of terminals.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Item Number / Title [DODIC]:** Family of Beyond Line-of-Sight Terminals
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	36.544	16.144	25.057	-	25.057
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	36.544	16.144	25.057	-	25.057
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**36.544**	**16.144**	**25.057**	**-**	**25.057**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - Presidential and National Voice Conferencing (PNVC) Cost																		
Recurring Cost																		
BBKs / PNVC Equipment	-	-	-	-	-	5.799	-	-	3.066	-	-	3.308	-	-	-	-	-	3.308
Subtotal: Recurring Cost	-	-	-	-	-	*5.799*	-	-	*3.066*	-	-	*3.308*	-	-	-	-	-	*3.308*
Subtotal: Hardware - Presidential and National Voice Conferencing (PNVC) Cost	**-**	**-**	**-**	**-**	**-**	***5.799***	**-**	**-**	***3.066***	**-**	**-**	***3.308***	**-**	**-**	**-**	**-**	**-**	***3.308***
Hardware - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost																		
Recurring Cost																		
FAB-T Terminals (PE 33601F/33001F)	-	-	-	-	-	3.118	-	-	0.940	-	-	0.800	-	-	-	-	-	0.800
Technical Mission Analysis	-	-	-	-	-	0.989	-	-	0.942	-	-	0.840	-	-	-	-	-	0.840
Subtotal: Recurring Cost	-	-	-	-	-	*4.107*	-	-	*1.882*	-	-	*1.640*	-	-	-	-	-	*1.640*
Subtotal: Hardware - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost	**-**	**-**	**-**	**-**	**-**	***4.107***	**-**	**-**	***1.882***	**-**	**-**	***1.640***	**-**	**-**	**-**	**-**	**-**	***1.640***
Logistics - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost																		
Recurring Cost																		
Interim Contractor Support	-	-	-	-	-	14.234	-	-	4.649	-	-	4.500	-	-	-	-	-	4.500
Depot Activation	-	-	-	-	-	8.243	-	-	3.568	-	-	12.809	-	-	-	-	-	12.809
Subtotal: Recurring Cost	-	-	-	-	-	*22.477*	-	-	*8.217*	-	-	*17.309*	-	-	-	-	-	*17.309*

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** FBLOST / Family of Beyond Line-of-Sight Terminals	**Item Number / Title [DODIC]:** Family of Beyond Line-of-Sight Terminals
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Subtotal: Logistics - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost	**-**	**-**	**-**	**-**	**-**	***22.477***	**-**	**-**	***8.217***	**-**	**-**	***17.309***	**-**	**-**	**-**	**-**	**-**	***17.309***
Support - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost																		
FAB-T A&AS	-	-	-	-	-	3.494	-	-	2.035	-	-	2.000	-	-	-	-	-	2.000
Other Support	-	-	-	-	-	0.667	-	-	0.944	-	-	0.800	-	-	-	-	-	0.800
Subtotal: Support - Family of Beyond Line-of-Sight Terminals (FAB-T) Cost	**-**	**-**	**-**	**-**	**-**	***4.161***	**-**	**-**	***2.979***	**-**	**-**	***2.800***	**-**	**-**	**-**	**-**	**-**	***2.800***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**36.544**	**-**	**-**	**16.144**	**-**	**-**	**25.057**	**-**	**-**	**-**	**-**	**-**	**25.057**

Remarks:
This P-Doc incorporates PE 1203001SF for FAB-T / PNVC.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** FET000 / FABT FORCE ELEMENT TERMINAL
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A — **Other Related Program Elements:** 1203001SF
Line Item MDAP/MAIS Code: N/A	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	121.634	-	121.634	234.255	212.400	23.447	23.939	-	615.675
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	121.634	-	121.634	234.255	212.400	23.447	23.939	-	615.675
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**121.634**	**-**	**121.634**	**234.255**	**212.400**	**23.447**	**23.939**	**-**	**615.675**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) Force Element Terminal (FET) production program is a new start in FY 2024.

The FAB-T FET replaces the Ultra High Frequency (UHF) Milstar terminals and provides secure, protected, and survivable communications for the strategic warfighter through airborne-based Military Satellite Communication (MILSATCOM) terminals. The FAB-T FET will provide worldwide nuclear and non-nuclear, survivable, anti-jam Low Probability of Detect (LPD)/ Low Probability of Intercept (LPI) data and voice communications. The FAB-T FET will be interoperable with Advanced Extremely High Frequency (AEHF), Enhanced Polar Systems - Recapitalization (EPS-R), and Evolved Strategic SATCOM (ESS) satellite constellations utilizing Extended Data Rate (XDR) waveforms and will be installed on the B-52 aircraft.

The FAB-T FET development program was executed as a Middle Tier of Acquisition (MTA) under R-1 Program Element 1203001SF, Family of Advanced BLoS Terminals (FAB-T). The program is planned to transition to the Major Capability Acquisition Pathway at Milestone C in FY24. This budget line provides funding for the follow-on production program.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** FET000 / FABT FORCE ELEMENT TERMINAL

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 1203001SF

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	FABT FORCE ELEMENT TERMINAL	P-5a	A		- / -	- / 0.000	- / 0.000	- / 121.634	- / -	- / 121.634
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**- / 0.000**	**- / 121.634**	**- / -**	**- / 121.634**

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

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

Justification:
This program is a new start.

In FY 2024, FAB-T FET will begin Low-Rate Initial Production activities to ultimately procure 76 FETs for the B-52 platform. It will also procure terminals for training, labs, and depots as well as spares for sustainment, integration, testing, and training activities. Additionally, FAB-T FET will procure Radiation Lot Acceptance Test (RLAT) components required to meet radiation hardness requirements. These procurements will ensure the delivery of FETs with the required operational capabilities to the warfighter, interim contractor support, and ongoing support to B-52 integration.

Activities will include program office support, studies, technical analysis, training, testing/test support, test deficiency resolution, modifications, and procurements to mitigate Diminishing Manufacturing Sources and Materiel Shortages that could adversely impact cost and schedule.

Specific quantities shown in this exhibit are based on the program office's current best estimate and may vary based on fact-of-life changes within the program.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** FET000 / FABT FORCE ELEMENT TERMINAL	**Item Number / Title [DODIC]:** FABT FORCE ELEMENT TERMINAL
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	121.634	-	121.634
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	121.634	-	121.634
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**121.634**	**-**	**121.634**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - FAB-T FET Cost																		
Recurring Cost																		
FAB-T Force Element Terminals Production(†)	-	-	-	-	-	0.000	-	-	0.000	3.888	13	50.550	-	-	-	3.888	13	50.550
Radiation Lot Acceptance Testing(†)	-	-	-	-	-	0.000	-	-	0.000	19.714	1	19.714	-	-	-	19.714	1	19.714
Spares/Repair Parts (Equivalent Sets)(†)	-	-	-	-	-	0.000	-	-	0.000	3.817	10	38.170	-	-	-	3.817	10	38.170
Tech Mission Analysis	-	-	-	-	-	0.000	-	-	0.000	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Recurring Cost	-	-	-	-	-	*0.000*	-	-	*0.000*	-	-	*108.934*	-	-	-	-	-	*108.934*
Subtotal: Hardware - FAB-T FET Cost	**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***108.934***	**-**	**-**	**-**	**-**	**-**	***108.934***
Support - FAB-T FET Cost																		
A&AS	-	-	-	-	-	0.000	-	-	0.000	-	-	5.000	-	-	-	-	-	5.000
FFRDC	-	-	-	-	-	0.000	-	-	0.000	-	-	4.200	-	-	-	-	-	4.200
Other Support	-	-	-	-	-	0.000	-	-	0.000	-	-	3.500	-	-	-	-	-	3.500
Subtotal: Support - FAB-T FET Cost	**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***12.700***	**-**	**-**	**-**	**-**	**-**	***12.700***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**121.634**	**-**	**-**	**-**	**-**	**-**	**121.634**

Remarks:
Specific quantities shown in this exhibit are based on the program office's current best estimate and may vary based on fact-of-life changes within the program.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: FET000 / FABT FORCE ELEMENT TERMINAL	Item Number / Title [DODIC]: FABT FORCE ELEMENT TERMINAL
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: FET000 / FABT FORCE ELEMENT TERMINAL	Item Number / Title [DODIC]: FABT FORCE ELEMENT TERMINAL

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
FAB-T Force Element Terminals Production		2024	Raytheon / MA	TBD	Hanscom AFB	Nov 2023	Nov 2026	13	3.888	Y		
Radiation Lot Acceptance Testing		2024	Raytheon / MA	TBD	Hanscom AFB	Jan 2024	Jan 2025	1	19.714	Y		
Spares/Repair Parts (Equivalent Sets)		2024	Raytheon / MA	TBD	Hanscom AFB	Nov 2023	Nov 2026	10	3.817	Y		

Remarks:
Specific quantities shown in this exhibit are based on the program office's current best estimate and may vary based on fact-of-life changes within the program.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GAP000 / Wideband Gapfiller Satellites(Space)
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	1	-	-	-	-	-	-	-	-	1
Gross/Weapon System Cost *($ in Millions)*	5.000	57.742	463.982	0.000	-	0.000	0.000	0.000	0.000	0.000	-	526.724
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.000	57.742	463.982	0.000	-	0.000	0.000	0.000	0.000	0.000	-	526.724
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.000**	**57.742**	**463.982**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**526.724**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	463.982	-	-	-	-	-	-	-	-	526.724

Description:

The Wideband Global SATCOM (WGS) System provides the DoD with high data rate Military Satellite Communication (MILSATCOM) services in accordance with the Joint Space Management Board-approved MILSATCOM architecture (August 1996), the Joint Requirements Oversight Council (JROC)-approved MILSATCOM Capstone Requirements Document (October 1997), and JROC-approved WGS Operational Requirements Document (May 2000). This program was originally conceived to augment the near-term "bandwidth gap" in warfighter communications needs. Dual-frequency WGS satellites augment, then replace the DoD's Defense Satellite Communications System X-band service and augment one-way Global Broadcast Service Ka-band capabilities. In addition, WGS provides a high-capacity two-way Ka-band service. Funding for this effort is to develop WGS-11 & 12 modern digital payloads for launch in FY 2025 and FY 2027, respectively, which will increase the availability of military-grade communications by providing more coverage beams than their existing WGS predecessors combined and delivering twice the operational capacity than previous WGS analog satellites. This effort funds $21.982M in FY 2023 to complete WGS-11 production. This effort also funds $442M in FY 2023 for WGS-12 to be protected wideband satellite by developing and hosting a tactical anti-jam payload.

WGS has 10 operational legacy satellites on-orbit, each developed by building on heritage WGS capabilities. Continually improving WGS capability and leveraging advances in Boeing commercial technology, in FY 2018 the DoD procured a more advanced single WGS-11 satellite enhancing support to the US military, DoD, and allied nations with more flexibility and mission capability to support dispersed users than previous WGS spacecraft. The new capabilities allow operators to create unique coverage anywhere within the satellite's field of view and custom designed for the mission at hand. In FY 2023, the DoD will procure a WGS-12, an expected clone of the WGS-11 spacecraft. The advanced beam management capabilities of WGS-11 & 12 payloads under development to produce more coverage beams (over 1500) than the entire existing WGS constellation and deliver twice the mission capacity than WGS-10 can operationally increase the availability of military-grade communications.

WGS Block I consists of satellites 1-3, Block II consists of satellites 4-6 and Block II Follow-on (B2FO) includes satellites 7-10 and WGS-11. WGS satellites 1-10 have been funded, procured and launched in previous budget cycles. WGS-11 hosts the Protected Tactical SATCOM (PTS) anti-jam payload, funded under the PTS program, PE 1206761SF. Satellite 12 is a planned addition to the B2FO contract, including PTS as a hosted payload.

In the Consolidated Appropriations Act, FY 2018, Congress added $600M Space Procurement Air Force (SPAF) in FY 2018 for "full funding for WGS-11 and WGS-12." A sole source Request for Proposal was released to Boeing in June 2018. A final decision was made to procure a single satellite with twice the operational capacity of WGS 10 (previously referenced as WGS 11+ to designate meeting the Congressional intent of two satellites, herein referenced as WGS-11) as the best approach to delivering the directed additional WGS capacity in a cost-effective manner. Total WGS-11 3021/3022 funds are $670.859M. WGS-11 will host a PTS payload providing robust anti-jam capability to tactical warfighters, funded by the PTS program in PE 1206761SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GAP000 / Wideband Gapfiller Satellites(Space)	
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		

In the FY 2023 Consolidated Appropriations Act, Congress added $422M for "Protected Wideband Satellite" to "procure a protected wideband satellite to provide resilient, jam resistant tactical communications to support warfighter needs." The United States Space Force (USSF) has interpreted the Congressional add as funding expected to cover the costs to for a WGS-12 spacecraft clone of WGS-11, to include acquiring the same PTS anti-jam prototype payload as a hosted on WGS-11. The current B2FO Acquisition Program Baseline (APB) allows for procurement of a WGS-12 and the acquisition is planned to be a Firm Fixed Price (FFP) effort beginning in FY 2023 with integration of PTS in FY 2026 and launch in FY 2027. The Congressional add does not include funding for ground, launch, and operation/maintenance activities. USSF is pursuing a mix of USSF and International Partner (IP) sources to cover additional funding required by FY 2025 for launch vehicle, ground and other Government costs.

IPs receive constellation-wide WGS resources commensurate with their financial contributions to the WGS system. Investment from IPs to cooperatively enhance the system started in November 2007 through a bilateral Memorandum of Understanding (MOU) with Australia to fund WGS space vehicle (SV)-6, launch and launch services. Five countries signed a new multilateral WGS MOU in CY 2012 and funded the procurement of WGS SV-9. In CY 2017, Amendment One to the WGS MOU leveraged additional funding for resiliency enhancements from two new IPs (Czech Republic and Norway). There is an International Agreement via the State Department regarding IP collaboration with WGS-11. In May 2022, nine countries signed Amendment Two to the multilateral MOU (adds Belgium and United Kingdom) to cover necessary ground upgrades and launch costs for WGS-11 not covered by the FY 2018 Congressional add, and extends the duration of the WGS MOU, as amended, through September 2039. Space Systems Command (SSC) provides program management, integration, and engineering expertise through FY 2026. Discussions for potential future partnerships regarding the WGS program continue in support of National Space Policy and improved operational efficiency.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. SSC has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

Funding for this exhibit is contained in PE 1203600SF.

Justification:
No FY 2024 funding requested.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GNRLIT / General Information Tech - Space

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203174SF, 1208736SF	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	3.316	5.424	3.451	-	3.451	2.584	1.835	1.885	1.924	-	20.419
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	3.316	5.424	3.451	-	3.451	2.584	1.835	1.885	1.924	-	20.419
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**3.316**	**5.424**	**3.451**	**-**	**3.451**	**2.584**	**1.835**	**1.885**	**1.924**	**-**	**20.419**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding for this exhibit is contained in PE 1203173SF, PE 1203174SF, PE 1208736SF, and PE 1208739SF.

PE 1203173SF Research & Development (R&D) Space and Missile Operations (RDSMO)
Beginning in FY 2024, RDSMO Procurement, Space Force (PSF), General Information Tech - Space (GNRLIT) funding transitioned to RDT&E PE 1203173SF, Space and Missile Test and Evaluation Center, Project R&D Space & Missile Operations (RDSMO) and is described in the following budget exhibit: 3620, RDT&E, SF/ BA 7: Operational Systems Development, Exhibit R-2 Line # 53. The RDSMO program, executed by the Acquisition Delta - Innovation and Prototyping, Space Systems Command at Kirtland Air Force Base (KAFB), NM, conducts space and missile Prototype Space Vehicle (SV) Ground Test and Evaluation (T&E) and Initial Operational Test and Evaluation (IOT&E) to support prototype, experimental, demonstration, and operational satellites within the RDT&E Support Complex (RSC) and Mobile Range Facility (MRF) at KAFB and at Schriever Space Force Base (SSFB), CO. The RDSMO program portfolio develops, acquires, integrates, delivers, tests, operates, and sustains all Multi- Mission Satellite Operations Center (MMSOC) satellite command and control (C2) Ground System Enterprises (GSE) and fixed/deployable telemetry, tracking, and commanding (TT&C) antenna systems in support of USSF and DoD missions and transitions designated satellite missions to the operational command upon user needs. Funds in the General Information Technology (Space) line procure Information Technology products to support RDSMO, which operates one-of-kind R&D and prototype satellites, transitioning those with military utility directly into warfighter operations.

PE 1203174SF Space Innovation, Integration and Rapid Technology Development
Located at Peterson Space Force Base, Colorado, the Space Innovation, Integration and Rapid Technology Development (SIIRTD) program supports the U.S. Space Force Analysis Center Advanced Virtual Analysis Capability (AVAC) system, a stand-alone system that provides a crosscutting capability to conduct, support, and report analysis on a myriad of tools, data, models and simulations. AVAC allows leadership to make decisions based on quantifiable operational impacts using various vignettes and studies applied to space and cyber assets. Funding buys system-specific hardware, software, routers, licenses, etc., to maintain the efficiency and compatibility with all current models.

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC), which oversees the RDSMO and SIIRTD efforts, has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

PE 1208736SF Range and Adversary

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GNRLIT / General Information Tech - Space

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203174SF, 1208736SF	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

This effort is executed by the Space Training and Readiness Command (STARCOM) located at Peterson Space Force Base in Colorado Springs. The Program Element enables the Department of Defense's only Space Test and Training Range, providing joint, service, and coalition customers with a safe and secure environment to support space control technique development and space test, training, and exercise activities. Also enables space aggressor capability which provides the United States Space Force's (USSF) professional adversary force, integrating across domains to ensure allied victory. Aggressors replicate the threat through expertise in multi-domain adversary operations and tactics, education of USSF, United States Air Force, Joint, and Coalition communities on multi-domain threats, as well as execution of integrated, advanced, and credible multi-domain threat replication operations in exercise and test environments. Provides threat replication across the full spectrum of space and counter space threats, to include Global Positioning System Electronic Attack, Satellite Communication EA, Orbital Warfare, and Adversary SATCOM Network.

PE 1208739SF Training and Readiness
This effort is executed by the Space Training and Readiness Command (STARCOM) located at Peterson Space Force Base in Colorado Springs. As directed by the AF Operational Training Infrastructure 2035 Flight Plan, space training holds a high priority for training capabilities that include a holistic and integrated approach and achieves full-spectrum readiness for space forces. The Distributed Communications Architecture (DCA) within the Distributed Mission Operations provides this technology and allows the USSF to evolve toward more space trainers and simulators that are network capable and able to interact in a synthetic environment with other weapon system trainers and a multi-domain command and control entity, pulling in data from a resilient enterprise ground architecture. The technology within the DCA allows for a distributed combat training environment for warfighters around the globe, remotely, without the need to travel to a dedicated training/exercise site.

Justification:
PE 1203173SF RDSMO: No FY 2024 funding requested.

PE 1203174SF SIIRTD FY 2024 (0.434M) funds a stand-alone system (Advanced Virtual Analysis Capability (AVAC)) to execute modeling and simulation tools used by the U.S. Space Force's Space Analysis Center. AVAC supports the tools which provide the analytical rigor to develop assessment strategies to assist with deliberate and contingency planning. This analysis is a critical component of the USSF force structure analysis. The AVAC funding is used to purchase hardware and software for three classification level enclaves. Analysis on these enclaves provide decision support for space capability development and space systems delivery as well as strengthen the commander's fight tonight strategy with quick-turn senior leader ops assessment. In addition, the AVAC will be used to run AI/ML applications to meet space mission requirements and execute space analysis tools. These space analysis tools improve enterprise accuracy/ efficiency and reinforce SDA community decisions with comprehensive studies and analysis.

PE 1208736SF Range and Adversary FY 2024 (1.921M) funds in this program provides realistic and relevant threat replication, through Commercial off-the-shelf (COTS) GPS and SATCOM equipment. Current equipment is over 10 years old, failing, antiquated and therefore does not accurately replicate existing adversary threats due to system limitations. Procurement funding will provide a 166% increase SATCOM availability and 120% increase in GPC electronic attack assets used to replicate adversary counter-space operations in support of Joint training audiences. Funds provide recapitalization of five SATCOM equipment assets and eight GPS assets within FY23-25; FY26 and beyond provides a steady-state sustainment and replacement cycle for both SATCOM and GPS assets. Without funding, the space aggressors are at risk of significant degradation in their threat replication capabilities. Aging equipment will prevent the space aggressors from providing a realistic threat environment and degrade our ability to train joint and coalition partners in a contested, degraded, operationally-limited space environment.

PE 1208739SF Training and Readiness FY 2024 (1.073M) funds procures information technology hardware & software infrastructure for the Distributed Communications Architecture (DCA) for the Distributed Mission Operations (DMO) for Space. This system provides a network-based communications capability enabling dispersed space personnel to participate in space exercises, like Space Flag, wargames and advanced space training events. DMO provides a high-fidelity theater synthetic battlespace and world-class exercise control to support joint distributed warfighter training, testing and experimentation across the operational and tactical levels of war. It can also support limited command and control capabilities for space operations.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPS03C / GPSIII Follow On

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203269SF	Other Related Program Elements: 1203269F
Line Item MDAP/MAIS Code: 590		

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	2	3	2	-	-	-	2	2	2	2	4	19
Gross/Weapon System Cost *($ in Millions)*	573.404	835.176	616.962	119.700	-	119.700	678.531	708.802	743.060	758.646	2,051.461	7,085.742
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	573.404	835.176	616.962	119.700	-	119.700	678.531	708.802	743.060	758.646	2,051.461	7,085.742
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**573.404**	**835.176**	**616.962**	**119.700**	**-**	**119.700**	**678.531**	**708.802**	**743.060**	**758.646**	**2,051.461**	**7,085.742**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	286.702	278.392	308.481	-	-	-	339.266	354.401	371.530	379.323	512.865	372.934

Description:

The Global Positioning System (GPS) is a space-based navigation system that fills validated Joint Service requirements for worldwide, accurate, common grid three dimensional positioning/navigation for military aircraft, ships, and ground personnel. The consistent accuracy, unaffected by location or weather and available in real time, significantly improves effectiveness of reconnaissance, weapons delivery, mine countermeasures and rapid deployment for all services. GPS must comply with Title 10 United States Code (USC) Sec. 2281, which requires that the Secretary of Defense ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec. 50112, which requires that GPS complies with certain standards and facilitates international cooperation.

The system is composed of three segments: User Equipment (funded under Program Element (PE) 1203164F, 1203164SF), Space (funded under PE 1203165F, 1203265F, 1203265SF, 1203269F, and 1203269SF), and a Control Network (funded under PE 1206423F, 1206423SF and 1203165F). The satellites broadcast high accuracy data using precisely synchronized signals that are received and processed by user equipment installed in military platforms. The user equipment computes the platform position and velocity and provides steering vectors to target locations or navigation waypoints. The control segment provides daily updates to the navigation messages broadcast from the satellites to maintain system precision in three dimensions to 16 meters (spherical error probable) worldwide. Additionally, GPS supports the United States Nuclear Detonation (NUDET) Detection System (USNDS) mission and provides strategic and tactical support to the following Department of Defense missions: Joint Operations by providing capabilities for Positioning, Navigation, and Timing (PNT); Command, Control, Communications, and Intelligence; Special Operations; Military Operations in Urban Terrain; Defense-Wide Mission Support; Air Mobility; and Space Launch Orbital Support.

GPS III Follow On (GPS IIIF) delivers improved satellites beyond the first ten space vehicles (SVs) being delivered by the GPS III program (funded in PE 1203265SF GPS III Space Segment). The GPS IIIF satellites maintain the same capabilities as the GPS III satellites, and also deliver significant enhancements to include: backward compatibility, Unified S-Band interface compliance, integration of hosted payloads including a redesigned USNDS payload, Laser Retro-reflector Arrays (LRAs), Search and Rescue/GPS (SAR/GPS), and Regional Military Protection (RMP) capabilities that provide the ability to deliver high-power regional Military Code signals in specific areas of intended effect. Implementation of RMP into the GPS Enterprise requires integration with the ground and user segments, executed by the GPS Next Generation Operational Control System and Military GPS User Equipment programs, respectively. The SAR/GPS payload provided by Canada fills a validated National Search and Rescue Committee requirement to provide an enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for Search and Rescue. The LRA, built by the Naval Research Lab, is a passive reflector that improves accuracy and provides better ephemeris data. National Geospatial-Intelligence Agency funds the integration costs of the LRA.

In December 2017, The Principal Deputy Assistant Secretary of the Air Force (Acquisition & Logistics) declared the GPS IIIF program a new start beginning in Fiscal Year (FY) 2019 and consistent with the FY 2016 National Defense Authorization Act, the program was categorized as an Acquisition Category 1B Major Defense Acquisition Program (MDAP) with the Service Acquisition Executive as the Milestone Decision Authority (MDA). During this time, the MDA approved the second phase of the two-phased GPS IIIF acquisition strategy. Executed using funds in PE 1203265F, GPS III Space Segment, the Phase 1

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: GPS03C / GPSIII Follow On	
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203269SF	Other Related Program Elements: 1203269F
Line Item MDAP/MAIS Code: 590		

Production Readiness Feasibility Assessments conducted during FY 2016 - FY 2017 provided data and insight into contractors' GPS satellite production designs with emphasis on a mature navigation payload and production-ready designs. Phase 1 results affirmed the viability of a competitive approach for Phase 2. The Phase 2 strategy directed the Air Force to conduct a full-and-open competition for GPS IIIF SVs and specified the use of RDT&E funds to deliver SVs 11-12 and conduct associated Non-Recurring Engineering. Milestone C Certification was achieved in July 2020 and procurement of SV 13+ occurred via annual contract options exercised using Procurement, Space Force funds consistent with full-funding policy under an annual-buy approach.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

GPS IIIF SVs 11 - 12 are in development and proceeding as planned. Both SVs have expected Available for Launch dates in FY 2026. Procurement of SVs 13 and 14 was awarded on October 7, 2020. Additionally, the GPS IIIF program office capitalized on a one-time only opportunity for economy of scale acquisition, via an Alternate Buy Strategy, that reduced total production costs with no expected impact to Acquisition Program Baseline milestones or planned on-orbit delivery of the SVs. SVs 15, 16, and 17 was were awarded on October 22, 2021. GPS IIIF SVs 18, 19, and 20 were awarded on October 27, 2022.

The FY 2022 Congressional add increased the FY 2022 procurement quantity to 3 GPS IIIF SVs and allows SSC to stretch the GPS IIIF SV production line in FY 2023 and subsequently FY 2024. An FY 2024 gap in procurement will create the right-sized buy profile to end GPS IIIF SV procurement in FY 2030 as originally planned.

Funding for this exhibit is contained in PE 1203269SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPS03C / GPSIII Follow On

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203269SF	Other Related Program Elements: 1203269F

Line Item MDAP/MAIS Code: 590

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GPSIII Follow On	P-5a	B		2 / 573.404	3 / 835.176	2 / 616.962	- / 119.700	- / -	- / 119.700
P-40	**Total Gross/Weapon System Cost**				**2 / 573.404**	**3 / 835.176**	**2 / 616.962**	**- / 119.700**	**- / -**	**- / 119.700**

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

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

Justification:
The FY 2022 Congressional add increased the FY 2022 procurement quantity to 3 GPS IIIF SVs and allows SSC to stretch the GPS IIIF SV production line in FY 2023 and subsequently FY 2024. GPS IIIF SVs 18, 19, and 20 were awarded on October 27, 2022. An FY 2024 gap in procurement will create the right-sized buy profile to end GPS IIIF SV procurement in FY 2030 as originally planned.

FY 2024 funding will purchase all resources necessary to maintain the current development and build schedules to support the planned GPS IIIF Available For Launch (AFL) dates. Funding will support system module hardware delivery for SVs 13 and 14, and long lead material procurements for SVs 15, 16, and 17. Additionally, an existing contractual clause allows the prime contractor to submit a Request for Equitable Adjustment (REA) when a SV is not procured each FY. The FY 2024 request includes the anticipated cost of this REA.

Rapidly respond to implement 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, etc.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** GPS03C / GPSIII Follow On	**Item Number / Title [DODIC]:** GPSIII Follow On
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	2	3	2	-	-	-
Gross/Weapon System Cost *($ in Millions)*	573.404	835.176	616.962	119.700	-	119.700
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	573.404	835.176	616.962	119.700	-	119.700
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**573.404**	**835.176**	**616.962**	**119.700**	**-**	**119.700**
(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)*	286.702	278.392	308.481	-	-	-

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Vehicle - GPSIII Follow On Cost																		
Recurring Cost																		
GPS IIIF(†)	265.502	2	531.004	257.574	3	772.724	275.423	2	550.847	-	-	72.438	-	-	-	-	-	72.438
GPS IIIF Enterprise SE&I	-	-	-	-	-	15.486	-	-	15.390	-	-	14.803	-	-	-	-	-	14.803
GPS IIIF Technical Mission Analysis	-	-	3.290	-	-	7.870	-	-	5.687	-	-	6.213	-	-	-	-	-	6.213
Subtotal: Recurring Cost	-	-	*534.294*	-	-	*796.080*	-	-	*571.924*	-	-	*93.454*	-	-	-	-	-	*93.454*
Subtotal: Space Vehicle - GPSIII Follow On Cost	**-**	**-**	***534.294***	**-**	**-**	***796.080***	**-**	**-**	***571.924***	**-**	**-**	***93.454***	**-**	**-**	**-**	**-**	**-**	***93.454***
Support - GPSIII Follow On Cost																		
GPS IIIF FFRDC	-	-	9.851	-	-	8.517	-	-	8.783	-	-	3.209	-	-	-	-	-	3.209
GPS IIIF A&AS	-	-	29.239	-	-	29.672	-	-	32.667	-	-	19.449	-	-	-	-	-	19.449
GPS IIIF Other Support	-	-	0.020	-	-	0.907	-	-	3.588	-	-	3.588	-	-	-	-	-	3.588
Subtotal: Support - GPSIII Follow On Cost	**-**	**-**	***39.110***	**-**	**-**	***39.096***	**-**	**-**	***45.038***	**-**	**-**	***26.246***	**-**	**-**	**-**	**-**	**-**	***26.246***
Gross/Weapon System Cost	**286.702**	**2**	**573.404**	**278.392**	**3**	**835.176**	**308.481**	**2**	**616.962**	**-**	**-**	**119.700**	**-**	**-**	**-**	**-**	**-**	**119.700**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: GPS03C / GPSIII Follow On	Item Number / Title [DODIC]: GPSIII Follow On

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
GPS IIIF		2021	Lockheed Martin / Littleton, CO	C / FPIF	SSC, LA AFB, CA	Oct 2020	Oct 2026	2	277.083	N	Sep 2020	
GPS IIIF		2022	Lockheed Martin / Littleton, CO	C / FPIF	SSC, LA AFB, CA	Oct 2021	Oct 2027	3	257.575	N	Sep 2021	
GPS IIIF		2023	Lockheed Martin / Littleton, CO	C / FPIF	SSC, LA AFB, CA	Oct 2022	Oct 2028	2	275.423	N	Sep 2022	

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 1203265SF / **Other Related Program Elements:** 1203265F
Line Item MDAP/MAIS Code: 590	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	20.122	84.452	103.340	121.770	-	121.770	75.491	50.078	2.809	0.000	0.000	458.062
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	20.122	84.452	103.340	121.770	-	121.770	75.491	50.078	2.809	0.000	0.000	458.062
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**20.122**	**84.452**	**103.340**	**121.770**	**-**	**121.770**	**75.491**	**50.078**	**2.809**	**0.000**	**0.000**	**458.062**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Global Positioning System (GPS) is a space-based navigation system that fills validated Joint Service requirements for worldwide, accurate, common grid three dimensional positioning/navigation for military aircraft, ships, and ground personnel. The consistent accuracy, unaffected by location or weather and available in real time, significantly improves effectiveness of reconnaissance, weapons delivery, mine countermeasures and rapid deployment for all services. GPS must comply with Title 10 United States Code (USC) Sec. 2281, which requires that the Secretary of Defense ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec. 50112, which requires that GPS complies with certain standards and facilitates international cooperation.

The system is composed of three programs: User Equipment (funded under Program Element (PE) 1203164F, 1203164SF), Space (funded under PE 1203165F, 1203265F, 1203265SF, 1203269F, and 1203269SF), and a Control Network (funded under PE 1206423F, 1206423SF and 1203165F). The satellites broadcast high accuracy data using precisely synchronized signals that are received and processed by user equipment installed in military platforms. The user equipment computes the platform position and velocity and provides steering vectors to target locations or navigation waypoints. The control segment provides daily updates to the navigation messages broadcast from the satellites to maintain system precision in three dimensions to 16 meters (spherical error probable) worldwide. Additionally, GPS supports the United States Nuclear Detonation Detection System mission and provides strategic and tactical support to the following Department of Defense missions: Joint Operations by providing capabilities for Positioning, Navigation, and Timing (PNT); Command, Control, Communications, and Intelligence; Special Operations; Military Operations in Urban Terrain; Defense-Wide Mission Support; Air Mobility; and Space Launch Orbital Support.

GPS III is the next generation of Space Vehicles (SV) supporting the GPS constellation. GPS III SVs deliver significant enhancements, including a new international civil (L1C) Galileo-compatible signal, and enhanced anti-jam power. GPS III SVs 06-10 are in the Production and Deployment Phase.

The Air Force GPS directorate received USD(AT&L) approval to purchase GPS III SVs 09-10 at the December 2014 Defense Acquisition Board in order to sustain the constellation while competitive options were pursued. The GPS III SVs 09-10 purchases are on the current Lockheed Martin contract as technical equivalents of SVs 01-08. SV 09 is funded with FY 2014 Missile Procurement, Air Force (MPAF) advance procurement and FY 2015 MPAF regular procurement. SV 10 is funded with FY 2015 MPAF advance procurement, and FY 2016 Space Procurement, AF regular procurement.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 1203265SF	**Other Related Program Elements:** 1203265F
Line Item MDAP/MAIS Code: 590		

SV 01 and SV 02 were successfully launched in December 2018 and August 2019, respectively. SV 01 was operationally accepted in January 2020 and SV 02 was operationally accepted in March 2020. SV 03 was successfully launched in June 2020 and operationally accepted in July 2020. SV 04 was successfully launched in November 2020 and operationally accepted in December 2020. SV 05 was successfully launched and operationally accepted in June 2021. SV 06 was successfully launched in January 2023. SV 07 achieved Available for Launch (AFL) in May 2021 and has a projected Initial Launch Capability (ILC) in FY 2024. SV 08 achieved AFL in June 2021 and has a projected ILC in FY 2025. SV 09 achieved AFL in August of 2022 and SV 10 delivered AFL in December 2022. Funding supported the SV 06 launch and will support a SV 07 projected launch in FY 2024.

Funding for this exhibit is contained in PE 1203265SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203265SF	Other Related Program Elements: 1203265F

Line Item MDAP/MAIS Code: 590

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GPS III Space Segment		B		- / 20.122	- / 84.452	- / 103.340	- / 121.770	- / -	- / 121.770
P-40	**Total Gross/Weapon System Cost**				**- / 20.122**	**- / 84.452**	**- / 103.340**	**- / 121.770**	**- / -**	**- / 121.770**

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

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

Justification:
FY 2024 funding will procure independent technical and integration support critical to managing SVs 06-10. Funding supports SV 06 Operational 365 Days On-Orbit Incentive Milestone and SV 07 Launch, On-Orbit Checkout, Declared Operational On-Orbit Incentive Milestones. Funding also supports SVs 07-10 storage, mission readiness testing, mission assurance activities, and launch preparation events. Also, supports SV 07 planned ILCs in FY 2024. SVs 08-10 have planned ILCs in FY 2025.

Rapidly respond to implement 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, etc.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment	**Item Number / Title [DODIC]:** GPS III Space Segment
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	20.122	84.452	103.340	121.770	-	121.770
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	20.122	84.452	103.340	121.770	-	121.770
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**20.122**	**84.452**	**103.340**	**121.770**	**-**	**121.770**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Vehicle - GPS III Space Segment Cost																		
Recurring Cost																		
GPS III SV03-10	-	-	2.650	-	-	21.571	-	-	3.670	-	-	43.725	-	-	-	-	-	43.725
GPS III SV03-10 Enterprise SE&I	-	-	0.000	-	-	3.284	-	-	3.348	-	-	3.939	-	-	-	-	-	3.939
GPS III SV03-10 Technical Mission Analysis	-	-	3.283	-	-	4.943	-	-	3.320	-	-	5.991	-	-	-	-	-	5.991
Subtotal: Recurring Cost	-	-	*5.933*	-	-	*29.798*	-	-	*10.338*	-	-	*53.655*	-	-	-	-	-	*53.655*
Subtotal: Space Vehicle - GPS III Space Segment Cost	**-**	**-**	***5.933***	**-**	**-**	***29.798***	**-**	**-**	***10.338***	**-**	**-**	***53.655***	**-**	**-**	**-**	**-**	**-**	***53.655***
Checkout and Launch - GPS III Space Segment Cost																		
GPS III SV03-10 Launch Services	-	-	0.130	-	-	18.025	-	-	79.118	-	-	30.884	-	-	-	-	-	30.884
GPS III SV03-10 On-Orbit/Mission Success Incentive	-	-	6.786	-	-	8.769	-	-	2.821	-	-	15.000	-	-	-	-	-	15.000
GPS III SV03-10 Storage and MRT	-	-	0.300	-	-	15.677	-	-	0.000	-	-	13.700	-	-	-	-	-	13.700
Subtotal: Checkout and Launch - GPS III Space Segment Cost	**-**	**-**	***7.216***	**-**	**-**	***42.471***	**-**	**-**	***81.939***	**-**	**-**	***59.584***	**-**	**-**	**-**	**-**	**-**	***59.584***
Support - GPS III Space Segment Cost																		
GPS III SV 03-10 FFRDC	-	-	2.915	-	-	3.635	-	-	2.716	-	-	2.604	-	-	-	-	-	2.604
GPS III SV 03-10 A&AS	-	-	3.818	-	-	8.308	-	-	8.107	-	-	5.477	-	-	-	-	-	5.477

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	Item Number / Title [DODIC]: GPS III Space Segment
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
GPS III SV 03-10 Other Support	-	-	0.240	-	-	0.240	-	-	0.240	-	-	0.450	-	-	-	-	-	0.450
Subtotal: Support - GPS III Space Segment Cost	***-***	***-***	***6.973***	***-***	***-***	***12.183***	***-***	***-***	***11.063***	***-***	***-***	***8.531***	***-***	***-***	***-***	***-***	***-***	***8.531***
Gross/Weapon System Cost	**-**	**-**	**20.122**	**-**	**-**	**84.452**	**-**	**-**	**103.340**	**-**	**-**	**121.770**	**-**	**-**	**-**	**-**	**-**	**121.770**

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** GPSSPC / Global Postioning (Space)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2.256	2.274	0.950	0.893	-	0.893	0.833	0.881	0.833	0.851	-	9.771
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2.256	2.274	0.950	0.893	-	0.893	0.833	0.881	0.833	0.851	-	9.771
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2.256**	**2.274**	**0.950**	**0.893**	**-**	**0.893**	**0.833**	**0.881**	**0.833**	**0.851**	**-**	**9.771**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Navstar Global Positioning System (GPS) provides highly accurate time, three-dimensional position, and velocity information to an unlimited number of users anywhere on or above the surface of the earth, in any weather. GPS satisfies validated Joint Service requirements for worldwide, accurate, common grid navigation for military aircraft, ships, ground vehicles and personnel. The system is comprised of three segments: (1) satellites, (2) a ground control, and (3) user equipment. The satellites broadcast high-accuracy data using precisely synchronized signals that are received and processed by user equipment installed in military platforms. The ground control network updates the navigation messages broadcast from the satellites to provide system vectors to target location or navigational way points. Funds in this line support various GPS specific production efforts associated with the ground control and user equipment segments.

KEY DATA LOADING INSTALLATION FACILITY (KLIF)/GPS SECURITY DEVICE: The KLIF facilitates the programming of black key (cryptographic) algorithms into the Selective Availability Anti-Spoofing Module (SAASM) to provide accurate positioning solutions for GPS users using secure equipment. Similar work for the Military GPS User Equipment (MGUE) is in the planning phase.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

Funding for this exhibit is contained in 1203164SF.

Justification:

KEY DATA LOADING INSTALLATION FACILITY (KLIF)/GPS SECURITY DEVICE: FY 2024 funding provides for the programming of black key (cryptographic) Algorithms and Initialization Parameters into the SAASM, providing an accurate positioning solution for GPS users using security equipment. Funding will procure support for SAASM Key Data Processors (KDP) based User Equipment programming, ensuring uninterrupted support to SAASM developers. SAASM developers are required to integrate the government-provided KDP as part of the SAASM security architecture of GPS User Equipment.

Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** HRTG00 / HERITAGE TRANSITION

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203605SF	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	13.529	21.896	6.110	-	6.110	13.314	10.186	8.996	9.184	-	83.215
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	13.529	21.896	6.110	-	6.110	13.314	10.186	8.996	9.184	-	83.215
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**13.529**	**21.896**	**6.110**	**-**	**6.110**	**13.314**	**10.186**	**8.996**	**9.184**	**-**	**83.215**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Command and Control System-Consolidated (CCS-C) is an Acquisition Category II program providing consolidated command and control (C2) capability for Milstar, Defense Satellite Communications Systems (DSCS), Advanced Extremely High Frequency (AEHF) and Wideband Global SATCOM (WGS) Military Satellite Communications (MILSATCOM) missions. CCS-C has C2 capability for future satellites as well. CCS-C is operated by the United States Space Force (USSF). In 2018, Air Force Space Command (AFSPC) mandated that all satellite programs will use Enterprise Ground Services (EGS) as the common platform C2 service to support spacecraft operations. This program, Heritage Transition (HRTG), modernizes CCS-C to use EGS and utilize current compute technology necessary for a common, cloud enabled ground architecture. This is done by procuring software modifications to existing services and mission unique capabilities required to support Satellite Control Network (SCN) based SATCOM C2 systems. This modernization also enables CCS-C to use an enterprise platform for satellite control through Wideband Satellite Operations Management System Network (WSOMSNet) and Global Satellite Command and Control Elements (GSCCE) to communicate with WGS satellites. HRTG was a New Start in FY 2022. HRTG enables adaptive and robust SATCOM C2 by modernizing the system to a more agile service oriented architecture and providing an integrated cyber defense posture. HRTG includes utilizing common messaging schemas to enable increased situational awareness for space warfighters on a common infrastructure. HRTG provides the software and hardware modifications required to ensure the operational CCS-C system is modernized when the USSF completes transition to the mandatory use of EGS. There is no increase in performance envelope associated with this effort. These mission-specific efforts will be used to migrate CCS-C into a common platform and increased use of electronic interfaces; R-1 Line Item 1206770SF / Enterprise Ground Services will fund efforts to provide the foundational EGS cyber-secure platform and applications enabling HRTG capability migration.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or re-purpose existing capabilities.

In FY 2024, $0.249M was realigned to APPN 3410, PE 1207804SF (SAG 13C), for fiscal policy compliance as SSC establishes Headquarters functions and a Chief Information Office (CIO) for integrated cybersecurity. The FY 2024 funding request was reduced by $10.823M to account for the availability of prior year execution balances.

Funding for this exhibit is contained in PE 1203605SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** HRTG00 / HERITAGE TRANSITION
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 1203605SF / **Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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 / Heritage Transition (Capability Improvement)		B		- / -	- / 13.529	- / 21.896	- / 6.110	- / 0.000	- / 6.110
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 13.529**	**- / 21.896**	**- / 6.110**	**- / -**	**- / 6.110**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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 / Heritage Transition (Capability Improvement)		B		- / 13.314	- / 10.186	- / 8.996	- / 9.184	- / -	- / 83.215
P-40	**Total Gross/Weapon System Cost**				**- / 13.314**	**- / 10.186**	**- / 8.996**	**- / 9.184**	**- / -**	**- / 83.215**

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

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

Justification:

The HRTG efforts modernizes the C2 system of record for DSCS, WGS, AEHF, and Milstar by transitioning CCS-C to a modern service-oriented architecture providing a Common Operating Picture (COP) for space warfighters. This COP enables Battlespace Awareness across the space domain by monitoring space assets for Indications & Warnings (I&W) of ongoing or impending adversary attacks. Modernizing CCS-C to utilize current information technology will also improve response to threats via agility of capability delivery through modernized architectures, increased cyber resiliency with integrated cyber defense systems, and reduced operator training through shared and common interfaces and underlying operations principles. These constellations provide worldwide flexible, high data rate and long haul communications for Marines, Soldiers, Sailors, Airmen, Guardians, the White House Communication Agency, the US State Department, international partners, and other special users. This effort provides a significant benefit to DSCS III, Milstar, WGS, and AEHF by improving threat responsiveness, system defense and battlespace awareness for the Nation's warfighters through procurement and operation of the satellite constellations and the associated control systems.

FY 2024 funds continue the modernization of mission unique software and hardware to the services-oriented environment that was initiated in FY 2022, aligning to the 2018 AFSPC direction for EGS as the tactical C2 service to support spacecraft operations. CCS-C components include, but are not limited to, support for spacecraft dynamics, simulation, mission scheduling, data libraries and data analytics. Mission unique components include, but are not limited to, mission specific automation, data exposure, Public Key Infrastructure (PKI) implementation, command processing, telemetry processing and orchestration. HRTG will implement system resiliency and situational awareness necessary to operate in the contested domain. The FY 2024 effort leverages common interfaces, virtualization and translation of mission unique software within the operational CCS-C system to ensure compatibility with the mandated transition to the EGS. FY 2024 funds will provide improved functionality to support the Defensive Space Control mission as well as increased cybersecurity leveraging modern software environment. Activities include, software change orders modifying CCS-C foundational capabilities and mission unique software, hardware modifications, program office support, studies, technical analysis, prototyping, non-recurring engineering, installation, technical documentation, security, quality assurance, etc. These efforts will be initiated once the CCS-C Sustainment and Resiliency (C SAR) contract is awarded to replace the current CCS-C Production and Sustainment (CPASC) contract. The C-SAR contract start date is planned for 1 Dec 2023. The associated HRTG effort is anticipated to be on contract 31 May 2024.

FY 2024 funds will allow USSF organizations to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, etc.

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** HRTG00 / HERITAGE TRANSITION	**Modification Number / Title:** 1 / Heritage Transition
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	13.529	21.896	6.110	0.000	6.110	13.314	10.186	8.996	9.184	-	83.215
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	13.529	21.896	6.110	0.000	6.110	13.314	10.186	8.996	9.184	-	83.215
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**13.529**	**21.896**	**6.110**	**0.000**	**6.110**	**13.314**	**10.186**	**8.996**	**9.184**	**-**	**83.215**
(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:

CCS-C provides SCN based C2 for the MILSATCOM constellations including Milstar, AEHF, WGS, and DSCS. EGS is a cloud enabled, service based, common ground architecture providing a foundation for satellite C2 programs to operate in. One of the benefits of using a common ground architecture for all satellite C2 functions is improved access to data for a COP and increasing space domain awareness.

Transitioning CCS-C to a modern architecture will provide 26 satellites from four constellations into a COP for space warfighters, improve agility of capability delivery through modernized architectures, increase cyber resiliency via integrated cyber defense systems, and reduce operator training by leveraging shared and common interfaces and underlying operations principles. Ongoing efforts include implementing software change orders to modify CCS-C foundational capabilities and mission unique software for the transition to an enterprise platform, transition telemetry tracking and commanding (TT&C) core functions to enterprise message bus communication, and replacing some components with enterprise provided services. CCS-C components include, but are not limited to, support for spacecraft dynamics, simulation, mission scheduling, data libraries and data analytics. Software and hardware modification deliveries for the operational CCS-C system will be required as needed to ensure compatibility with the USSF mandated transition to EGS without impacts to ongoing satellite operations. HRTG will implement system resiliency and situational awareness necessary to operate in the contested domain. Activities may include, but are not limited to, program office support, studies, technical analysis, prototyping, non-recurring engineering, installation, technical documentation, security, quality assurance, etc. Other modifications may include required procurement, non-recurring engineering, installation, configuration management, security, quality assurance and technical documentation. Future year defense program funds will complete this transition and conduct operations transition activities.

An initial HRTG effort, which includes EGS integration activities, is an Engineering Change Proposal (ECP) on the current CCS-C Operations and Sustainment (O&S) contract. This EGS integration ECP RFP was awarded 4 Jan 2023. Future HRTG activities will be part of a Task Order under the CCS-C Sustainment and Resiliency (C-SAR) contract. C-SAR is the follow-on to the current CCS-C O&S contract. The CCS-C program office plans to release the RFP for HRTG related work under C-SAR on 1 Dec 2023 with an anticipated PoP start of 31 May 2024. This task order will be incrementally funded until the HRTG mandated transition is complete by 2028. The current performance work statement (PWS) is written to emphasize agile software deliveries in a 12-month cycle. Software delivery dates will be more defined once Contract Data Requirement Lists (CDRLs) are agreed upon. SSC will provide EGS standards to mission programs to facilitate utilizing pre-existing hosted applications on EGS platform to the maximum extent. The C-SAR contract is postured to support the need to develop and add software applications for employment onto EGS if there are no current applications to fit mission needs.

Milestone/Development Status

This effort is an operational modification to the existing CCS-C system that is currently in operations and sustainment. The modification leverages a five-year study completed in FY 2021 to inform the fastest, most cost-effective way to migrate CCS-C C2 capabilities in order to be compatible with the EGS environment.

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: HRTG00 / HERITAGE TRANSITION	Modification Number / Title: 1 / Heritage Transition
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: CCS-C	Modification Type: Capability Improvement	Related RDT&E PEs:

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: EGS/MUS Implementation/ Synchronization, Software Change Orders												
B Kits												
Recurring												
EGS/MUS Implementation/Synchronization, Software Change Orders:EQUIPMENT Group B (Active)	- / -	1 / 9.667	1 / 19.187	1 / 4.907	- / -	1 / 4.907	1 / 10.406	1 / 7.712	1 / 7.809	1 / 7.961	- / -	7 / 67.649
Subtotal: Recurring	- / -	- / *9.667*	- / *19.187*	- / *4.907*	- / -	- / *4.907*	- / *10.406*	- / *7.712*	- / *7.809*	- / *7.961*	- / -	- / *67.649*
Subtotal: EGS/MUS Implementation/Synchronization, Software Change Orders	- / -	- / *9.667*	- / *19.187*	- / *4.907*	- / -	- / *4.907*	- / *10.406*	- / *7.712*	- / *7.809*	- / *7.961*	- / -	- / *67.649*
Subtotal: Procurement, All Modification Items	- / -	- / *9.667*	- / *19.187*	- / *4.907*	- / -	- / *4.907*	- / *10.406*	- / *7.712*	- / *7.809*	- / *7.961*	- / -	- / *67.649*
Support *(All Modification Items)*												
GROUP B: TOTAL NONRECURRING	- / -	- / 1.934	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.934
FFRDC	- / -	- / 0.750	- / 0.872	- / 0.333	- / -	- / 0.333	- / 0.615	- / 0.419	- / 0.434	- / 0.450	- / -	- / 3.873
A&AS	- / -	- / 1.149	- / 1.336	- / 0.420	- / -	- / 0.420	- / 0.756	- / 0.488	- / 0.515	- / 0.543	- / -	- / 5.207
OTHER GOVT	- / -	- / 0.029	- / 0.501	- / 0.450	- / -	- / 0.450	- / 1.537	- / 1.567	- / 0.238	- / 0.230	- / -	- / 4.552
Subtotal: Support	- / -	- / *3.862*	- / *2.709*	- / *1.203*	- / -	- / *1.203*	- / *2.908*	- / *2.474*	- / *1.187*	- / *1.223*	- / -	- / *15.566*
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	**-**	**13.529**	**21.896**	**6.110**	**0.000**	**6.110**	**13.314**	**10.186**	**8.996**	**9.184**	**-**	**83.215**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** HRTG00 / HERITAGE TRANSITION	**Modification Number / Title:** 1 / Heritage Transition
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Modification Item 1 of 1: EGS/MUS Implementation/Synchronization, Software Change Orders

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** JTAGS0 / Joint Tactical Ground Stations

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 1208053SF

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	0.580	-	0.580	0.000	0.000	0.000	0.000	-	0.580
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	0.580	-	0.580	0.000	0.000	0.000	0.000	-	0.580
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**0.580**	**-**	**0.580**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**0.580**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Joint Tactical Ground Station (JTAGS) disseminates near real time warning, alerting, and cueing information on ballistic missile launches and other tactical events of interest throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). JTAGS, first fielded in 1997, has four OCONUS deployed JTAGS units, which are deployed in three theaters (PACOM, CENTCOM, EUCOM). A fifth CONUS system is used as an institutional trainer though is available as a deployable asset. Obsolescence issues coupled with the requirement to be compatible with the Air Force's newer satellites (Space Based Infrared System (SBIRS)) and their improved warning accuracy and timeliness, resulted in the production/fielding of the JTAGS Block II Pre-Planned Product Improvement (P3I) system. The JTAGS Approved Acquisition Objective (AAO) is five systems. Four OCONUS deployed JTAGS units, which are deployed in three theaters (United States Pacific Command (PACOM), United States Central Command (CENTCOM), United States European Command (EUCOM)), constitute DoD's only in-theater system providing space-based missile warning. The fifth CONUS system is used as an institutional trainer but is available as a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES), supporting all Theater Missile Defense pillars, affording the shortest sensor-to-shooter connectivity.

Justification:

This program is a new start.

JTAGS is transitioning to US Space Force in Fiscal Year 2024 (FY2024).

FY2024 Base Funding in the amount of 0.576 million funds the JTAGS Block 2 Phase 2 Spiral 3 fielding efforts.

Funding increase from FY2023 to FY2024 is the result of the transfer of JTAGS from the Army to the Space Force.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MC0MSE / Spaceborne Equip (Comsec)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	46.945	29.587	83.168	-	83.168	83.686	84.478	87.336	90.036	-	505.236
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	46.945	29.587	83.168	-	83.168	83.686	84.478	87.336	90.036	-	505.236
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**46.945**	**29.587**	**83.168**	**-**	**83.168**	**83.686**	**84.478**	**87.336**	**90.036**	**-**	**505.236**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Space Communications Security (COMSEC) procures centrally-funded cryptographic products to operate in the space environment and for ground nodes that link to space assets. Space COMSEC equipment is a foundational element in achieving space information superiority. Space COMSEC provides cybersecurity (confidentiality, integrity, and availability) for Department of Defense (DOD) satellite platforms. Space COMSEC is an enabler for space system compliance with CNSSP No. 12 - Cybersecurity Policy of Space Systems Used to Support National Security Missions. Space COMSEC provides products and lifecycle sustainment support to all DoD satellite systems and commercial systems supporting DOD missions. The Air Force, Space Force, DOD, and Intelligence Community require the capability to secure, collect, process, store, 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. Space COMSEC equipment protects information such as warfighter positions, mission planning, target strikes, commanders' orders, intelligence, force strength, and force readiness. When an adversary is capable of interpretation, manipulation, or destruction of the information used by the warfighter, DoD military forces will suffer significant and/or devastating mission degradation that can result in loss of life and resources and/or exceptionally grave damage to national security. Space COMSEC enables secure Command and Control (C2) of satellites and prevents unauthorized access and destruction. It enables secure transmission of satellite systems' health and status telemetry data (satellite health and relative orbital position) to ground control stations, thus protecting critical information about the capabilities of DoD satellite systems. The capability of a system must be protected from an adversary to avoid exploitation of a system weakness/limitation, knowledge of which could assist an adversary in a successful mission against DoD military forces. Space COMSEC also provides secure transmission of information collected by satellite sensors (mission data), which provides the warfighter an integrated view of the battle space. Space COMSEC provides for secure SATCOM, positioning, navigation, timing, weather, nuclear detection and early warning missions. Space COMSEC procures crypto end items and logistics elements to support developing and operational space systems. The Space Modular Common Cryptography (SMCC) Program of Record procures a family of common cryptography (crypto) solutions that integrate Telemetry, Tracking, and Command (TT&C), Mission Data (MD), and Transmission Security (TRANSEC) key stream functions for the Air Force, Space Force, DoD, and Intelligence Community space systems. The SMCC Program's mission is to secure communication links and the data transmitted, incorporate standard interfaces that leverage existing technologies, provide a basis for future technologies, and design solutions that are scalable, upgradeable, and reconfigurable.

Funding for this exhibit contained in program element (PE) 1203140F.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MC0MSE / Spaceborne Equip (Comsec)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	Spaceborne Equip (Comsec)	P-5a	A		- / -	- / 46.945	- / 29.587	- / 83.168	- / -	- / 83.168
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 46.945**	**- / 29.587**	**- / 83.168**	**- / -**	**- / 83.168**

*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. Space Communications Security (COMSEC): Procures centrally-funded cryptographic products to operate in the space environment and for ground nodes that link to space assets. Funding provides for the production of Space COMSEC products to meet developing and operational space program needs. Space COMSEC products include End Crypto Units (ECU), Embedded Solutions (ES), TRANSEC and ancillaries. Due to low volume production quantities and high reliability design, Space COMSEC products can range in price from 10K per unit to 2M per unit. Each year the types and quantities of items vary to meet requirements; an Average Unit Cost is used. As a commodity item, Space COMSEC procures standard crypto products which enable minimized lifecycle footprints. Space COMSEC procures from multiple crypto vendors; however, with the low volume consumption by space programs, the space crypto industry base is less than a dozen companies. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements. Contractor support costs are included as part of the Space COMSEC products funding line in order to provide for end item operational capability. FY24 funding increased to fully fund procurement for space-rated crypto devices that support USSF satellite launches/systems and procurement of corresponding ground station products and lifecycle support elements.

a. Logistics: FY24 funding provides for higher contracting costs to address growing Space Force and Air Force Space COMSEC requirements. Space COMSEC products typically have a 20 to 40 year lifecycle to support development, launch and operation of multiple Air Force, Space Force, and DoD space systems. Space COMSEC is provided as Government Furnished Equipment (GFE) to the space system developing contractors and operational ground stations. Space COMSEC products are high cost critical assets and are organically sustained to include component level maintenance exclusively by the Air Force. Logistics procures the necessary lifecycle sustainment elements required to meet the 40 year mission requirements. Logistics elements include, but not limited to, specialized test sets, certified training materials and courses, maintenance manuals, provisioning, spare components, and modifications. Contractor support costs are included as part of the Space COMSEC logistics funding line in order to provide for end item operational capability.

b. Aerospace Vehicle Equipment (AVE) Products: FY24 funding provides Telemetry, Tracking, and Command (TT&C) and mission data cryptographic products to operate in the space environment. AVE procurement of reduced size, weight, and power space qualified satellite cybersecurity COMSEC products supports development, integration, launch and operations in DOD National Security Space System's LargeSat, SmallSat, CubeSat, and hosted payload applications. FY24 funding significantly increased to address USSF growing requirements and Department of the Air Force (DAF) priority to fully fund Space COMSEC.

c. Ground Operating Equipment (GOE) Products: FY24 funding provides cryptographic products for ground nodes which link to space satellite National Security Space System satellite platforms. GOE provides the procurement of ground equipment with corresponding space algorithms required to communicate with DOD satellite systems. Procurement of Telemetry, Tracking, and Command (TT&C), Mission Data and Satellite Communication (SATCOM) cybersecurity ground application COMSEC products enable secure command and control and secure data transmission protecting DOD space systems' capabilities (Position, Navigation, Timing, Early Warning, SATCOM, Remote Sensing, and Intelligence, Surveillance and Reconnaissance). FY24 funding significantly increased to address USSF growing requirements and Department of the Air Force (DAF) priority to fully fund Space COMSEC.

2. Space Modular Common Cryptography (SMCC): Reduces space programs development and life cycle costs by providing a common, modular and upgradable cryptographic solution set. SMCC is fully endorsed by NSA as the preferred solution for all emerging National Security Space Systems. The SMCC Program awarded a 5-year production contract in FY21 to procure Common Crypto Solutions for Air Force, Space Force, DOD, and Intelligence Community Space Programs. FY23 funding provided for the production of SMCC units for satellite programs including GPS IIIF and Next Generation Geosynchronous-

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: MC0MSE / Spaceborne Equip (Comsec)	
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		

Overhead Persistent Infrared (NGG-OPIR). SMCC meets NSA mandated space algorithm transition/ modernization guidance to mitigate evolving threats/vulnerabilities and will provide modernized cryptographic capabilities. No FY24 funding requested.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MC0MSE / Spaceborne Equip (Comsec)	**Item Number / Title [DODIC]:** Spaceborne Equip (Comsec)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	46.945	29.587	83.168	-	83.168
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	46.945	29.587	83.168	-	83.168
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**46.945**	**29.587**	**83.168**	**-**	**83.168**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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. Space Communications Security (COMSEC) (PE 1203140F) Cost																		
Recurring Cost																		
a. Logistics	-	-	-	2.047	4	8.189	1.065	3	3.195	2.000	4	8.000	-	-	-	2.000	4	8.000
b. AVE(†)	-	-	-	0.256	20	5.110	0.468	26	12.160	0.345	111	38.345	-	-	-	0.345	111	38.345
c. GOE(†)	-	-	-	0.063	195	12.305	0.056	169	9.432	0.060	611	36.823	-	-	-	0.060	611	36.823
Subtotal: Recurring Cost	-	-	-	-	-	*25.604*	-	-	*24.787*	-	-	*83.168*	-	-	-	-	-	*83.168*
Subtotal: Hardware - 1. Space Communications Security (COMSEC) (PE 1203140F) Cost	**-**	**-**	**-**	**-**	**-**	***25.604***	**-**	**-**	***24.787***	**-**	**-**	***83.168***	**-**	**-**	**-**	**-**	**-**	***83.168***
Hardware - 2. Space Modular Common Crypto (SMCC) (PE 1203140F) Cost																		
Recurring Cost																		
SMCC	-	-	-	1.123	19	21.341	1.200	4	4.800	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*21.341*	-	-	*4.800*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - 2. Space Modular Common Crypto (SMCC) (PE 1203140F) Cost	**-**	**-**	**-**	**-**	**-**	***21.341***	**-**	**-**	***4.800***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**46.945**	**-**	**-**	**29.587**	**-**	**-**	**83.168**	**-**	**-**	**-**	**-**	**-**	**83.168**

Remarks:
Space COMSEC equipment is an aggregation of various units at various prices. Average Unit Cost is used.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MC0MSE / Spaceborne Equip (Comsec)	Item Number / Title [DODIC]: Spaceborne Equip (Comsec)
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MC0MSE / Spaceborne Equip (Comsec)	Item Number / Title [DODIC]: Spaceborne Equip (Comsec)

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
b. AVE		2022	MULTIPLE / MULTIPLE	Various	AFMC	Jun 2022	Aug 2023	20	0.256	Y		
b. AVE		2023	MULTIPLE / MULTIPLE	Various	AFMC	Jun 2023	Aug 2024	26	0.468	Y		
b. AVE		2024	MULTIPLE / MULTIPLE	Various	AFMC	Jun 2024	Aug 2025	111	0.345	Y		
c. GOE		2022	MULTIPLE / MULTIPLE	Various	AFMC	Feb 2022	May 2023	195	0.063	Y		
c. GOE		2023	MULTIPLE / MULTIPLE	Various	AFMC	May 2023	Jul 2024	169	0.056	Y		
c. GOE		2024	MULTIPLE / MULTIPLE	Various	AFMC	Jul 2024	Aug 2025	611	0.060	Y		

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM

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

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	26.638	24.333	29.333	44.672	-	44.672	25.561	17.161	17.594	17.963	-	203.255
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	26.638	24.333	29.333	44.672	-	44.672	25.561	17.161	17.594	17.963	-	203.255
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**26.638**	**24.333**	**29.333**	**44.672**	**-**	**44.672**	**25.561**	**17.161**	**17.594**	**17.963**	**-**	**203.255**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Military Satellite Communications (MILSATCOM) joint service systems collectively provide a broad range of satellite communication capabilities, including secure, jam-resistant, 24-hour worldwide communications to meet essential strategic, tactical and general-purpose operational requirements. MILSATCOM terminals support communications requirements for the President and Secretary of Defense, unified and specified commanders, uniformed services and defense agencies. To enable this support, this program funds the three efforts.

AIR FORCE WIDEBAND ENTERPRISE TERMINALS (AFWET): These terminals form the Satellite Communications (SATCOM) backbone of the DoD Information Network (DoDIN), operating over Wideband Global SATCOM (WGS), Defense Satellite Communications System (DSCS), commercial and Allied satellites. These Enterprise terminals support the command and control requirements of Combatant Commanders worldwide and the communication requirements of the President, Secretary of Defense, Department of State (DoS), U.S. strategic and tactical forces, and the North Atlantic Treaty Organization. The United States Space Force (USSF) is responsible for terminal equipment at Space Force operated and maintained Enterprise ground terminal locations.

GLOBAL BROADCAST SERVICE (GBS): This Space Force-led joint program implements a worldwide high-capacity satellite broadcast information system to provide a continuous, one-way, high-speed, high-volume flow of classified and unclassified intelligence products (full motion video, imagery, data) to garrisoned, deployed or moving forces. GBS Receive Suites provide lower-echelon United States Air Force (USAF) users with efficient high-data-rates via satellite-hosted GBS packages. GBS Procurement funding includes the necessary updates to address two GBS limitations, Transmission Security (TRANSEC) and Contested, Degraded and Operationally-Limited (CDO) capabilities. First, National Security Agency (NSA), via the Committee on National Security Systems (CNSS) Policy 12 and CNSS instruction 1200, requires U.S. Government agencies to employ TRANSEC systems to protect information transmitted/received by National Security Space (NSS) systems. Second, the Chief Space Operations' (CSO) SATCOM Vision mandates a SATCOM Enterprise that can operate through a CDO environment. Army-Air Force Anti-Jam Modem (A3M) delivers TRANSEC and Anti-Jam capabilities required to address both GBS' limitations. Full procurement and fielding of the protected modems will begin in FY 2024.

A3M: Space Systems Command (SSC) is procuring and fielding Protected Tactical Waveform (PTW) capable modems to meet the Ground Multiband Terminal (GMT) and other Tactical SATCOM mission requirements. The A3M is the program of record for development, procurement, and fielding of the PTW capability. The USSF is teamed with the Army to expand the competitive industry base and gain volume cost savings of a common Line Replaceable Unit (LRU) modem. The A3M modem will provide high throughput and enhanced anti-jam capability in benign and contested environments to prevent the disruption of communications from electronic jamming at identified threat levels of the WGS Operational Requirements Document (ORD). The A3M modem meets the Internet Protocol (IP) mandate is forward compatible with the future Protected Tactical SATCOM (PTS), and contains a NSA certified End Cryptographic Unit (ECU). The A3M modem integrates into the GMT and other Tactical SATCOM terminals in operation using industry standard interfaces and is operator configurable to the different antenna sizes currently in operation.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM	
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		

A3M Procurement funding includes depot tooling, continues establishment of the Key Loading and Initialization Facility (KLIF), and procures equipment to support a systems integration checkout capability (i.e. Systems Integration Lab (SIL)). Funding for depot tooling includes but not limited to workstations, fixtures, or any other equipment that may be used for intake, rework, restock and testing of A3M LRU modems. The KLIF is used to initialize and restore the modem with NSA provided cryptologic keys before being sent to the field. The SIL is used to test changes in software or Tactics, Techniques and Procedures (TTPs) on real terminals and modems, but in a laboratory environment, before making changes to fielded systems. Funding also purchases additional Protected Tactical Enterprise Service (PTES) KLIF Host equipment, A3M warehousing equipment, shipping containers, and A3M test equipment and repair work spaces. Funding covers shipping of A3M cases to field units and return shipping of un-modified GMT equipment cases and fielding support. A3M purchases and delivers technical data and initial spares in a combination of spare modems and subassembly parts equivalent to 10% sparing. A3M's Indefinite Quantity Indefinite Delivery (IDIQ) contract enables future fielding for additional SATCOM users.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. SSC has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

Funding for this exhibit is contained in Program Element (PE) 1203601SF MILSATCOM TERMINALS.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	AFWET		A		- / 22.120	- / 10.406	- / 11.995	- / 20.969	- / -	- / 20.969
P-5	GBS		A		- / 0.000	- / 0.494	- / 0.000	- / 7.068	- / -	- / 7.068
P-5	PTW Modems		B		- / 4.518	- / 13.433	- / 17.338	- / 16.635	- / -	- / 16.635
P-40	**Total Gross/Weapon System Cost**				**- / 26.638**	**- / 24.333**	**- / 29.333**	**- / 44.672**	**- / -**	**- / 44.672**

*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:
AFWET: In FY 2024, funding will extend the life of the system, modernize operational suitability, safety and effectiveness, and maintain high interoperability with other DoD, Army, Navy, and Air Force strategic and tactical terminals to include mobile capability.

AFWET Terminal Modernization includes engineering, site preparation, terminal and radome installation, integration, acceptance testing and funding initial spares. Install and commission the final 6 of 27 terminals to complete AFWET Terminal Modernization (June 2023). Operational acceptance of the 27th MET will be the declaration of Full Operational Capability (FOC).

AFWET Maintenance Upgrades and Sustainment includes: Facility Infrastructure Monitoring Systems (FIMS), power and communication infrastructure, Interconnect Facility (ICF) installations which provide incidental increases in capability, allowing for full utilization of WGS capabilities, compliance with directives on the usage of Internet Protocol, adherence to Unified Capabilities Requirements, compliance with Defense Information Systems Agency (DISA) and National Security Agency directives and more efficient and effective usage of satellite resources for jam-resistant and anti-scintillation wideband links. 21 of the 27 installed and commissioned terminals.

AFWET Product Support includes: SATCOM Modernization Services (SMS) skillsets required for specialized SATCOM fielding and training supporting Terminal Modernization.

AFWET Other Support includes: Advisory and Assistance Services (A&AS), system engineering, and other related activities supporting successful program execution.

Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, etc.

GBS: FY 2024 funding will procure the initial quantity of A3M modems for USAF and USSF users of the GBS. The A3M enables GBS Receive Suites used by U.S. warfighters to continue receiving high-volume, real time intelligence products (e.g., high definition full motion video drone feeds) in contested environments. The A3M also ensures NSA and ORD requirements for TRANSEC are met. Full procurement of remaining A3M will occur from FY 2025 through FY 2028.

Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, etc.

A3M: FY 2024 effort includes purchase of PTW capable modems, fielding and installing PTW Modems into multiple types of tactical terminals, and distribution of the modems to the needs of GMT USSF users and USAF users.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM	
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		

A3M support costs includes: systems engineering support, integration and testing, other related activities supporting modem production, installation and fielding, and successful program execution.

Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, etc.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM	**Item Number / Title [DODIC]:** AFWET
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	22.120	10.406	11.995	20.969	-	20.969
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	22.120	10.406	11.995	20.969	-	20.969
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**22.120**	**10.406**	**11.995**	**20.969**	**-**	**20.969**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - AFWET Cost																		
Recurring Cost																		
Terminal Modernization	-	-	7.029	-	-	3.200	-	-	2.774	-	-	-	-	-	-	-	-	-
Install/Deinstall	-	-	-	-	-	-	-	-	-	-	-	4.703	-	-	-	-	-	4.703
Engineering/ Integration (E&I)	-	-	-	-	-	-	-	-	-	-	-	1.283	-	-	-	-	-	1.283
Post Modernization of Enterprise Terminals (MET) Equipment	-	-	10.843	-	-	-	-	-	-	-	-	10.980	-	-	-	-	-	10.980
Maintenance Upgrade/ Sustainment	-	-	1.311	-	-	-	-	-	4.492	-	-	-	-	-	-	-	-	-
Product Support	-	-	1.368	-	-	5.600	-	-	2.594	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*20.551*	-	-	*8.800*	-	-	*9.860*	-	-	*16.966*	-	-	-	-	-	*16.966*
Subtotal: Hardware - AFWET Cost	**-**	**-**	***20.551***	**-**	**-**	***8.800***	**-**	**-**	***9.860***	**-**	**-**	***16.966***	**-**	**-**	**-**	**-**	**-**	***16.966***
Support - AFWET Cost																		
Advisory and Assistance Services (A&AS)	-	-	0.736	-	-	0.606	-	-	0.733	-	-	0.989	-	-	-	-	-	0.989
SATCOM Modernization Services (SMS)	-	-	-	-	-	-	-	-	-	-	-	2.124	-	-	-	-	-	2.124
Other Government Costs	-	-	0.833	-	-	1.000	-	-	1.402	-	-	0.890	-	-	-	-	-	0.890
Subtotal: Support - AFWET Cost	**-**	**-**	***1.569***	**-**	**-**	***1.606***	**-**	**-**	***2.135***	**-**	**-**	***4.003***	**-**	**-**	**-**	**-**	**-**	***4.003***

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MILSAT / MILSATCOM	Item Number / Title [DODIC]: AFWET
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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	-	-	22.120	-	-	10.406	-	-	11.995	-	-	20.969	-	-	-	-	-	20.969

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM	**Item Number / Title [DODIC]:** GBS
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.494	0.000	7.068	-	7.068
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.494	0.000	7.068	-	7.068
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.494**	**0.000**	**7.068**	**-**	**7.068**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - GBS Cost																		
Recurring Cost																		
GBS-Enterprise Systems Engineering & Integration	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GBS- Receive Suites, Integration and Installation	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GBS-TRANSEC modem	-	-	0.000	-	-	0.494	-	-	0.000	-	-	7.068	-	-	-	-	-	7.068
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.494*	-	-	*0.000*	-	-	*7.068*	-	-	-	-	-	*7.068*
Subtotal: Hardware - GBS Cost	**-**	**-**	***0.000***	**-**	**-**	***0.494***	**-**	**-**	***0.000***	**-**	**-**	***7.068***	**-**	**-**	**-**	**-**	**-**	***7.068***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.494**	**-**	**-**	**0.000**	**-**	**-**	**7.068**	**-**	**-**	**-**	**-**	**-**	**7.068**

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MILSAT / MILSATCOM	**Item Number / Title [DODIC]:** PTW Modems
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.518	13.433	17.338	16.635	-	16.635
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.518	13.433	17.338	16.635	-	16.635
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.518**	**13.433**	**17.338**	**16.635**	**-**	**16.635**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - A3M Cost																		
Recurring Cost																		
Depot Tooling	-	-	-	-	-	1.814	-	-	-	-	-	-	-	-	-	-	-	-
Modem Purchase (includes Labor & Shipping)	-	-	-	-	-	-	0.074	216	15.974	0.097	151	14.705	-	-	-	0.097	151	14.705
Deployment & Training	-	-	-	-	-	0.411	-	-	-	-	-	-	-	-	-	-	-	-
Program Evaluation Modem	0.054	60	3.218	0.044	40	1.760	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*3.218*	-	-	*3.985*	-	-	*15.974*	-	-	*14.705*	-	-	-	-	-	*14.705*
Subtotal: Hardware - A3M Cost	**-**	**-**	***3.218***	**-**	**-**	***3.985***	**-**	**-**	***15.974***	**-**	**-**	***14.705***	**-**	**-**	**-**	**-**	**-**	***14.705***
Support - A3M Cost																		
Systems Engineering & Integration (SE&I)	-	-	-	-	-	5.115	-	-	-	-	-	0.775	-	-	-	-	-	0.775
Technical Mission Analysis	-	-	1.300	-	-	-	-	-	0.347	-	-	0.225	-	-	-	-	-	0.225
Other Support	-	-	-	-	-	0.041	-	-	0.100	-	-	0.100	-	-	-	-	-	0.100
A&AS	-	-	-	-	-	4.292	-	-	0.917	-	-	0.830	-	-	-	-	-	0.830
Subtotal: Support - A3M Cost	**-**	**-**	***1.300***	**-**	**-**	***9.448***	**-**	**-**	***1.364***	**-**	**-**	***1.930***	**-**	**-**	**-**	**-**	**-**	***1.930***
Gross/Weapon System Cost	**-**	**-**	**4.518**	**-**	**-**	**13.433**	**-**	**-**	**17.338**	**-**	**-**	**16.635**	**-**	**-**	**-**	**-**	**-**	**16.635**

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 0604441F — **Other Related Program Elements:** 1206441F
Line Item MDAP/MAIS Code: N/A	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	145.891	154.526	148.666	39.438	-	39.438	0.000	0.000	0.000	0.000	-	488.521
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	145.891	154.526	148.666	39.438	-	39.438	0.000	0.000	0.000	0.000	-	488.521
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**145.891**	**154.526**	**148.666**	**39.438**	**-**	**39.438**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**488.521**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Note: The flyaway unit cost is not included on the P-40 exhibit because there are multiple P-5 Cost Analysis exhibits.

The Space Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the United States (US), its deployed forces and its allies. SBIRS enhances detection and improves reporting of intercontinental ballistic missiles, submarine launched ballistic missiles, and tactical ballistic missiles. SBIRS provides increased detection and tracking performance in order to meet requirements in the Operational Requirements Document (ORD). SBIRS will consist of satellites in Geosynchronous Earth Orbit (GEO) and in Highly Elliptical Earth Orbit (HEO) with an integrated, centralized ground station serving all SBIRS space elements, Defense Support Program (DSP) satellites and other program related support activities. The HEO payloads operate on a classified host.

SBIRS 3-6 SATELLITES:

SBIRS GEO-3 and 4 satellites are derivatives of the first two GEO satellites which were delivered on the SBIRS Engineering and Manufacturing Development (EMD) contract (Research, Development, Test, and Evaluation (RDT&E) funded). The GEO-3 and 4 satellite production efforts are necessary to meet constellation requirements. In Dec 2008, the Department approved the procurement of GEO-3 and 4 satellites and the HEO-3 and 4 payloads using a Cost-Plus contract. In order to minimize the number of storage actions and costs associated with aligning the SBIRS launches to the earliest assigned Initial Launch Capability (ILC) date of Apr 2016, the GEO-3 satellite completed production and was placed into storage in Jul 2015. The GEO-4 satellite launched as the third flight (GEO-4 Flight-3) in Jan 2017. The GEO-3 (Flight-4) satellite launched in Jan 2018. GEO-3 and 4 are fully mission capable, having completed Air Force Space Command (AFSPC) and United States Strategic Command (USSTRATCOM) operational acceptance and are certified for Integrated Tactical Warning/Attack Assessment (ITW/AA) missile warning operations and technical intelligence operations.

SBIRS GEO-5 and 6 satellites are derivatives of the GEO-3 and 4 satellites and will be replacements for GEO-1 and 2. A four phased contract approach awarded non-recurring engineering and parts obsolescence using advanced procurement funds in Sep 2012, followed by award of long lead items in Feb 2013, full production in Jun 2014, and technical refresh in Jun 2015. The GEO-5 and 6 technical refresh contract modification modernizes the existing spacecraft bus design to improve commonality across United States Space Force (USSF) and Government satellite programs, and enable compatibility with multiple launch vehicles. The full production effort includes 2 satellites with persistent infrared missile and threat warning payloads, launch vehicle integration, launch and early orbit test, dual communication band modification (unified SBand), and contractor operations support through operational acceptance. The GEO-5 satellite launched on 18 May 2021. The GEO-6 Satellite successfully launched 4 Aug 2022.

For the GEO 5-6 block buy, the FY 2013 National Defense Authorization Act (NDAA) authorizes six years of incremental production funding and limits the incrementally funded contract obligation to 3,900M. The years of incremental funding are FY 2013-2018. Advance procurement was appropriated in FY 2011 and FY 2012. GEO 5-6 advance procurement and incremental funding are attributed to FY 2013 for

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0604441F	Other Related Program Elements: 1206441F
Line Item MDAP/MAIS Code: N/A		

the purposes of identifying full funding for procurement end items. Each year of appropriation FY 2013-2018 is in two parts, the incrementally funded contract amount and annual program support costs. The incrementally funded amount complies with the National Defense Authorization Act (NDAA) cap.

Space Based Infrared System (SBIRS) High Elliptical Earth Orbit (HEO)-3 and 4 payloads are replenishments for HEO-1 and 2 payloads, which were delivered on the SBIRS Engineering Manufacturing and Development (EMD) contract Research, Development, Test, and Evaluation (RDT&E) funded. The HEO-3 and 4 payloads are on-orbit and certified for Integrated Tactical Warning/Attack Assessment (ITW/AA) missile warning operations and certified for technical intelligence operations. HEO-1 and HEO-2 are in a storage/residual operational mode.

Total GEO 3-4 3020/3021 funds are 2,794.947M.
Total GEO 5-6 3020/3021/3022 funds are 3,369.2M.
Total HEO 3-4 3020/3021 funds are 1,146.672M.
Total S2E2 3080/3020/3021/3022 funds are 686.944M.

SBIRS SURVIVABLE ENDURABLE EVOLUTION (S2E2): The S2E2 effort replaces the DSP only Mobile Ground System (MGS); S2E2 consists of the SBIRS Mobile Ground Terminal (SMGT) and Parabolic Dish Subsystem (PDSS) and is the critical situation monitoring element in the three national-level architectures: Integrated (ITW/AA) System, Chairman Joint Chiefs of Staff (CJCS) Critical Nodes, and Nuclear Command and Control System (NCCS). U.S. Strategic Command (USSTRATCOM) needs U.S. Space Command's global S/E TW/AA operational capabilities to meet President of the United States, Joint Staff, Combatant Commander, and Forward User requirements for continuous, persistent, and enduring TW/AA non-imaging infrared for Missile Warning (MW) and Nuclear Detection (NUDET) reporting across all phases of military operations. The program will deliver a minimum of 4 SMGTs that will have the modified capability in accordance with the U.S. Space Command (USSPACECOM) Survivable/Endurable Concept of Operations Concept of Operations (CONOPS), signed 19 November 2021, to include SBIRS Geosynchronous Earth Orbit (GEO) 5/6 processing and Tracking, Telemetry, and Command (TT&C), and the new protected and wide band Satellite Communication (SATCOM) capable terminals. Funding also provides Interim Contractor Support (ICS). The delivery of this effort enables the weapon system to process SBIRS GEO (1-6), and Global Positioning System (GPS) and NUDET data and missions while addressing long-standing obsolescence, supportability, and cyber-security concerns as well as improved capability to withstand a high-altitude electromagnetic pulse (HEMP) per MIL-STD-188-125-2. In addition, training software, and integration of the Universal Ground NUDET Terminal (UGNT) and the new protected and wide band SATCOM capable terminals are included. Finally, this effort includes all activities required to pivot the weapon system to meet the CONOPS change directed by USSPACECOM and signed on 19 November 2021. Additionally, S2E2 includes operations location setup, transportation of hardware to include, but not limited to, Systems Engineering and Technical Assistance (SETA) enterprise activities which provide intra-and inter-program office support to support S2E2 operations.

SBIRS MOBILE AND FIXED SITE COMMUNICATIONS/ELECTRONIC REPLACEMENT: This effort procures Defense Support Program (DSP) and SBIRS assets to maintain the ground system equipment. Fixed site examples include, but are not limited to, legacy receiver, antenna drive system, Spacecraft Simulator RF, Mission Control Station (MCS) display, Rapid Delog (instantaneous translation of computer data to a human-readable format), Sybase database obsolescence, communications and network routers, and switches and time server replacements. Mobile system examples include, but are not limited to, aging radio frequency communications equipment, aging antenna equipment, aging electrical equipment and cabling, and unsupportable data processing subsystem components. Funding also provides for Program Office and related support activities to include but not limited to, Systems Engineering and Technical Assistance (SETA) enterprise activities which provides intra- and inter-program office support. Funding for this effort is program element 1203915F and 1203915SF.

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) is transforming the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.

Funding for this exhibit contained in PE 1203915SF

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 0604441F / **Other Related Program Elements:** 1206441F
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GEO 5-6		A		- / 94.048	- / 87.592	- / 35.415	- / 1.154	- / -	- / 1.154
P-5	SBIRS Survivable Endurable Evolution (S2E2)		A		- / 32.591	- / 58.855	- / 71.000	- / 9.059	- / -	- / 9.059
P-3a	1 / SBIRS Mobile System & Fixed Comm Electronics Upgrades (Reliability & Maintainability)		B		- / 19.252	- / 8.079	- / 42.251	- / 29.225	- / 0.000	- / 29.225
P-40	**Total Gross/Weapon System Cost**				**- / 145.891**	**- / 154.526**	**- / 148.666**	**- / 39.438**	**- / -**	**- / 39.438**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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	GEO 5-6		A		- / -	- / -	- / -	- / -	- / -	- / -
P-5	SBIRS Survivable Endurable Evolution (S2E2)		A		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / SBIRS Mobile System & Fixed Comm Electronics Upgrades (Reliability & Maintainability)		B		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 98.807
P-40	**Total Gross/Weapon System Cost**				**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / 0.000**	**- / -**	**- / 488.521**

*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:
Geosynchronous Earth Orbit (GEO) 5-6: FY 2024 funds cover product support for contract closeout.

SURVIVABLE ENDURABLE EVOLUTION (S2E2): FY 2024 funding will continue to fund program baseline that will deliver S2E2 through Initial Operating Capability (IOC) and bring SBIRS GEO and Global Positioning System (GPS) Nuclear Detection (NUDET) into the U.S. Strategic Command (USSTRATCOM) Nuclear Command, Control, and Communication (NC3) endurable mission. The program will deliver a minimum of 4 SBIRS Mobile Ground Terminals (SMGTs) that will have the modified capability in accordance with the U.S. Space Command (USSPACECOM) Survivable/Endurable Concept of Operations (CONOPS) signed 19 Nov 2021 to include SBIRS GEO 5/6 processing and Telemetry, Tracking, and Command (TT&C), and the new protected and wide band Satellite Communications (SATCOM) capable terminals. Funding also provides Interim Contractor Support (ICS) support to program fielding efforts.

Mobile & Fixed Site Communications and Electronics Upgrades: FY 2024 funding enables the program to address known obsolescence issues impacting the existing SBIRS mission system. Activities include, but are not limited to replacing obsolete/non-supportable Antenna Control System (ACS) hardware, resolving Cisco network/firewall device obsolescence issues, etc.

Additionally, FY 2024 funding will allow the program to address Transport/Firewall Obsolescence issues at the SBIRS Mission Control Station (MCS) and Mission Control Station Backup (MCSB).

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Item Number / Title [DODIC]:** GEO 5-6
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	94.048	87.592	35.415	1.154	-	1.154
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.048	87.592	35.415	1.154	-	1.154
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.048**	**87.592**	**35.415**	**1.154**	**-**	**1.154**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Vehicle - GEO 5-6 Cost																		
Recurring Cost																		
GEO 5-6 Hardware	-	-	2.790	-	-	4.606	-	-	-	-	-	-	-	-	-	-	-	-
GEO 5-6 Integration and Assembly	-	-	15.813	-	-	26.098	-	-	-	-	-	-	-	-	-	-	-	-
GEO 5-6 Enterprise Systems Engineering & Integration (SE&I)	-	-	1.493	-	-	1.153	-	-	1.242	-	-	-	-	-	-	-	-	-
Technical Mission Analysis	-	-	8.380	-	-	7.718	-	-	0.304	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*28.476*	-	-	*39.575*	-	-	*1.546*	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
GEO 5-6 Launch Vehicle and Range Integration	-	-	6.199	-	-	8.197	-	-	2.667	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*6.199*	-	-	*8.197*	-	-	*2.667*	-	-	-	-	-	-	-	-	-
Subtotal: Space Vehicle - GEO 5-6 Cost	**-**	**-**	***34.675***	**-**	**-**	***47.772***	**-**	**-**	***4.213***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Checkout and Launch - GEO 5-6 Cost																		
GEO 5-6 Launch Ops & Checkout	-	-	38.531	-	-	26.675	-	-	25.629	-	-	-	-	-	-	-	-	-
Interim Contractor Support (ICS)	-	-	16.735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Checkout and Launch - GEO 5-6 Cost	**-**	**-**	***55.266***	**-**	**-**	***26.675***	**-**	**-**	***25.629***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)	Item Number / Title [DODIC]: GEO 5-6
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - GEO 5-6 Cost																		
Other Support	-	-	0.305	-	-	4.878	-	-	0.919	-	-	0.008	-	-	-	-	-	0.008
FFRDC	-	-	0.983	-	-	1.412	-	-	0.143	-	-	-	-	-	-	-	-	-
A&AS	-	-	2.819	-	-	6.855	-	-	4.511	-	-	1.146	-	-	-	-	-	1.146
Subtotal: Support - GEO 5-6 Cost	**-**	**-**	***4.107***	**-**	**-**	***13.145***	**-**	**-**	***5.573***	**-**	**-**	***1.154***	**-**	**-**	**-**	**-**	**-**	***1.154***
Gross/Weapon System Cost	**-**	**-**	**94.048**	**-**	**-**	**87.592**	**-**	**-**	**35.415**	**-**	**-**	**1.154**	**-**	**-**	**-**	**-**	**-**	**1.154**

Remarks:

Geosynchronous Earth Orbit (GEO) 5-6: The GEO-6 Satellite successfully launched on 4 Aug 2022.

The incrementally funded amount includes the above Total Space Vehicle Cost (less: SE and I, Launch Vehicle and Range Integration, and Interim Contractor Support) and Launch Ops and Checkout Cost. Total incrementally funded amount of 2,729.420M complies with FY 2013 National Defense Authorization Act (NDAA) limiting procurement cost to 3,900M.

The FY 2013 gross weapon system cost includes advance procurement amount of 243.314M appropriated in FY 2011 and 243.500M appropriated in FY 2012.

Total GEO 5-6 3020/3021/3022 funds are 3,369.2M

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Item Number / Title [DODIC]:** SBIRS Survivable Endurable Evolution (S2E2)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	32.591	58.855	71.000	9.059	-	9.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	32.591	58.855	71.000	9.059	-	9.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**32.591**	**58.855**	**71.000**	**9.059**	**-**	**9.059**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Recurring Cost																		
Systems Engineering & Integration (SE&I)	-	-	5.239	-	-	4.519	-	-	5.732	-	-	2.391	-	-	-	-	-	2.391
Technical Mission Analysis	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*5.239*	-	-	*4.519*	-	-	*5.732*	-	-	*2.391*	-	-	-	-	-	*2.391*
Non Recurring Cost																		
S2E2 SMGT DSP/ GEO Stereo Capability Modification	-	-	15.274	-	-	19.793	-	-	44.013	-	-	5.764	-	-	-	-	-	5.764
S2E2 SMGT	-	-	0.000	-	-	14.959	-	-	2.946	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*15.274*	-	-	*34.752*	-	-	*46.959*	-	-	*5.764*	-	-	-	-	-	*5.764*
Subtotal: Hardware - SBIRS Survivable Endurable Evolution (S2E2) Cost	**-**	**-**	***20.513***	**-**	**-**	***39.271***	**-**	**-**	***52.691***	**-**	**-**	***8.155***	**-**	**-**	**-**	**-**	**-**	***8.155***
Software - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Non Recurring Cost																		
S2E2 Software	-	-	11.807	-	-	16.132	-	-	13.335	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*11.807*	-	-	*16.132*	-	-	*13.335*	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Item Number / Title [DODIC]:** SBIRS Survivable Endurable Evolution (S2E2)
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Subtotal: Software - SBIRS Survivable Endurable Evolution (S2E2) Cost	**-**	**-**	***11.807***	**-**	**-**	***16.132***	**-**	**-**	***13.335***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Other Support	-	-	0.050	-	-	0.162	-	-	0.225	-	-	0.225	-	-	-	-	-	0.225
FFRDC	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
A&AS	-	-	0.221	-	-	3.290	-	-	4.749	-	-	0.679	-	-	-	-	-	0.679
Subtotal: Support - SBIRS Survivable Endurable Evolution (S2E2) Cost	**-**	**-**	***0.271***	**-**	**-**	***3.452***	**-**	**-**	***4.974***	**-**	**-**	***0.904***	**-**	**-**	**-**	**-**	**-**	***0.904***
Gross/Weapon System Cost	**-**	**-**	**32.591**	**-**	**-**	**58.855**	**-**	**-**	**71.000**	**-**	**-**	**9.059**	**-**	**-**	**-**	**-**	**-**	**9.059**

Remarks:

Space Based Infrared System (SBIRS) Survivable Endurable Evolution (S2E2): SBIRS capable Mobile Ground Stations (MGS) require the interim deliverables over this period as described below.

-FY 2017-2024 - Funds a total 5 SBIRS Mobile Ground Terminals (SMGTs) of which a minimum of 4 SBIRS Mobile Ground Terminals (SMGTs) will meet the modified capability in accordance with Concept of Operations (CONOPS) signed 19 Nov 2021. S2E2 SMGT cost moved to non-recurring to match current program strategy.

-FY 2017-2024 - includes integration of SBIRS Geosynchronous Earth Orbit (GEO) 5/6, and the new protected and wide band Satellite Communications (SATCOM) capable terminals in the program baseline to bring SBIRS GEO and Global Positioning System Nuclear Detection into the U.S. Strategic Command (USSTRATCOM).

-FY 2017-2024 - includes operations location setup, transportation of hardware to include, but not limited to, Systems Engineering and Technical Assistance enterprise activities which provide intra-and inter-program office support to support S2E2 operations.

Total S2E2 Funding for FY 2011-2024 $686.944M

Quantity 5

Gross Unit Cost $137.389M

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Modification Number / Title:** 1 / SBIRS Mobile System & Fixed Comm Electronics Upgrades

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

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	19.252	8.079	42.251	29.225	0.000	29.225	0.000	0.000	-	-	-	98.807
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	19.252	8.079	42.251	29.225	0.000	29.225	0.000	0.000	-	-	-	98.807
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**19.252**	**8.079**	**42.251**	**29.225**	**0.000**	**29.225**	**0.000**	**0.000**	**-**	**-**	**-**	**98.807**
(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:

Space Based Infrared System (SBIRS) MOBILE AND FIXED SITE COMMUNICATIONS/ELECTRONIC REPLACEMENT: This effort procures Defense Support Program (DSP) and SBIRS assets to maintain the ground system equipment. Fixed site examples include, but are not limited to, legacy receiver, antenna drive system, Spacecraft Radio Frequency (RF) simulator, Mission Control Station (MCS) display, Rapid Delog (instantaneous translation of computer data to a human-readable format), Sybase database obsolescence, communications and network routers, and switches and time server replacements. Mobile system examples include, but are not limited to, aging radio frequency communications equipment, aging antenna equipment, aging electrical equipment and cabling, and unsupportable data processing subsystem components. Funding also provides for Program Office and related support activities to include but not limited to, Systems Engineering and Technical Assistance (SETA) enterprise activities which provides intra-and inter-program office support. Funding for this effort is in program element 1203915F and 1203915SF.

FY 2024 funding will address network, mission processing, cyber security and crypto obsolescence mitigation projects with the SBIRS mission systems.

Milestone/Development Status

Program office recurring DSP and SBIRS requirements are planned and programmed on an annual basis to maintain the ground system equipment.

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Modification Number / Title:** 1 / SBIRS Mobile System & Fixed Comm Electronics Upgrades
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	
Models of Systems Affected: SBIRS	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: SBIRS Mobile Sys & Fixed Comm Elect Upgrades												
B Kits												
Recurring												
SBIRS Mobile Sys & Fixed Comm Elect Upgrades:EQUIPMENT Group B (Active)	1 / 19.113	1 / 7.614	1 / 41.840	1 / 28.745	- / -	1 / 28.745	- / -	- / -	- / -	- / -	- / -	4 / 97.312
Subtotal: Recurring	*- / 19.113*	*- / 7.614*	*- / 41.840*	*- / 28.745*	*- / -*	*- / 28.745*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 97.312*
Subtotal: SBIRS Mobile Sys & Fixed Comm Elect Upgrades	*- / 19.113*	*- / 7.614*	*- / 41.840*	*- / 28.745*	*- / -*	*- / 28.745*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 97.312*
Subtotal: Procurement, All Modification Items	*- / 19.113*	*- / 7.614*	*- / 41.840*	*- / 28.745*	*- / -*	*- / 28.745*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 97.312*
Support *(All Modification Items)*												
A&AS	- / 0.064	- / 0.091	- / 0.080	- / 0.075	- / -	- / 0.075	- / -	- / -	- / -	- / -	- / -	- / 0.310
FFRDC	- / 0.041	- / 0.047	- / 0.041	- / 0.055	- / -	- / 0.055	- / -	- / -	- / -	- / -	- / -	- / 0.184
OTHER GOVT	- / 0.034	- / 0.327	- / 0.290	- / 0.350	- / -	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / 1.001
Subtotal: Support	*- / 0.139*	*- / 0.465*	*- / 0.411*	*- / 0.480*	*- / -*	*- / 0.480*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 1.495*
Installation												
Modification Item 1 of 1: SBIRS Mobile Sys & Fixed Comm Elect Upgrades	1 / 0.000	1 / 0.000	1 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	4 / 0.000
Subtotal: Installation	*1 / 0.000*	*1 / 0.000*	*1 / 0.000*	*1 / 0.000*	*- / -*	*1 / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*4 / 0.000*
Total												
Total Cost (Procurement + Support + Installation)	**19.252**	**8.079**	**42.251**	**29.225**	**0.000**	**29.225**	**0.000**	**0.000**	**-**	**-**	**-**	**98.807**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)	**Modification Number / Title:** 1 / SBIRS Mobile System & Fixed Comm Electronics Upgrades

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

Modification Item 1 of 1: SBIRS Mobile Sys & Fixed Comm Elect Upgrades

Manufacturer Information

Manufacturer Name: Lockheed Martin Space Systems	Manufacturer Location: Colorado Springs, CO
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Jun 2022	Jun 2023	Jun 2024				
Delivery Dates	Jun 2022	Jun 2023	Jun 2024				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000
FY 2022	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000
FY 2023	- / -	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000
FY 2024	- / -	- / -	- / -	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	1 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	1 / 0.000	1 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	4 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				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	1	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	4
Out	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	4

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MSSPAC / Special Space Activities
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	131.488	871.054	840.913	-	840.913	442.006	522.822	728.790	735.296	-	4,272.369
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	131.488	871.054	840.913	-	840.913	442.006	522.822	728.790	735.296	-	4,272.369
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**131.488**	**871.054**	**840.913**	**-**	**840.913**	**442.006**	**522.822**	**728.790**	**735.296**	**-**	**4,272.369**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

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 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** 1203109SF / **Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: 345	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	45.371	46.833	101.147	-	101.147	48.912	49.876	51.142	52.215	-	395.496
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	45.371	46.833	101.147	-	101.147	48.912	49.876	51.142	52.215	-	395.496
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**45.371**	**46.833**	**101.147**	**-**	**101.147**	**48.912**	**49.876**	**51.142**	**52.215**	**-**	**395.496**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Mobile User Objective System (MUOS) provides a worldwide, multi-service population of mobile and fixed-site terminal users with ultra-high frequency (UHF), narrowband, and beyond line-of-sight satellite communications (SATCOM). MUOS significantly increases performance and capacity in support of critical Combatant Command SATCOM priorities. MUOS is the replacement system for the UHF Follow-on (UFO) system, which is currently beyond its design life. MUOS consists of Space, Ground, and User Entry Segments. MUOS reached full operational capability October 2019.

The Space Segment consists of five geosynchronous satellites, one of which is an on-orbit spare, and provides both a legacy UHF payload, which is backward compatible with UFO, and a Wideband Code Division Multiple Access (WCDMA) payload, which provides 3G cellular-like capability. The User Entry Segment consists of the MUOS waveform that is ultimately integrated into MUOS-capable terminals.

The cost for MUOS Ground Segment upgrades varies depending on the complexity of software defects being addressed and unique configuration of hardware and software requirements being fielded at each of the six MUOS ground sites within each given year. The MUOS Ground Segment upgrades address cybersecurity and lifecycle management issues at each of the six MUOS ground sites.

The Ground Segment or System consists of four world-wide Radio Access Facilities (RAFs) (Wahiawa, Hawaii; Northwest Chesapeake, Virginia; Niscemi, Italy; and Geraldton, Australia) and two Satellite Control Facilities (Port Hueneme, California, and Schriever Space Force Base (SFB), Colorado). Each RAF includes three 60 ft. antennas and over 50 equipment racks which house a total of 5,000 major hardware components and 250 software applications across the MUOS Program. The RAF in Hawaii includes a Network Management Facility (NMF). The RAFs in Hawaii and Virginia each include a Switching Facility (SF). All four RAFs and two Satellite Control Facilities are considered Ground Sites.

In addition to providing UHF SATCOM for the Department of Defense (DoD), the Space Force has the overall responsibility to deliver the end-to-end (E2E) MUOS capability to the warfighter. This responsibility involves systems engineering, integration, and test management of all MUOS system-of-system activities, to include the integration of the MUOS waveform into MUOS-capable terminals and the subsequent terminal certification testing.

Beginning in FY 2017, the program's focus has been upgrading all four RAFs and two Satellite Control Facilities to address ongoing cybersecurity threats, hardware and software obsolescence, and operational deficiencies.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial and mission partnerships, and managing program/project priorities according to an integrated unclassified/

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: MUOS00 / Mobile User Objective System	
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 1203109SF	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: 345		

classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Funding for this exhibit is contained in PE 1203109SF. This program element may include necessary civilian pay expenses required to manage, execute, and deliver MUOS system capability. Funding reflects fiscal policy compliance as Space Systems Command (SSC) establishes Headquarters functions and a Chief Information Office (CIO) for integrated cybersecurity.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 1203109SF	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 345

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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 / Mobile User Objective System (Other)		A		- / -	- / 45.371	- / 46.833	- / 101.147	- / 0.000	- / 101.147
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 45.371**	**- / 46.833**	**- / 101.147**	**- / -**	**- / 101.147**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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 / Mobile User Objective System (Other)		A		- / 48.912	- / 49.876	- / 51.142	- / 52.215	- / -	- / 395.496
P-40	**Total Gross/Weapon System Cost**				**- / 48.912**	**- / 49.876**	**- / 51.142**	**- / 52.215**	**- / -**	**- / 395.496**

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

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

Justification:

The FY 2024 funding will address obsolescence and cybersecurity vulnerabilities within the MUOS Ground Segment. Emerging cybersecurity threats, increasing cybersecurity requirements, and the evolution of denial-of-service threats against DoD systems have made it imperative for the MUOS ground system to keep pace. FY 2024 funding increases from previous year to fund unanticipated complexity in hardware and software obsolescence updates on the MUOS unclassified domain across all four MUOS radio access facilities, including the network management facility and switching facilities. These updates also include the two 10th Space Operations Squadron ground sites. The updates will migrate the domain from obsolete hardware, software, and operating systems to cyber-compliant and manufacturer-supported hardware, software, and operating systems. FY 2024 funds initiate the effort to incrementally deliver configuration updates across 30-months. FY 2024 funds ensure resolution of a large number of information assurance vulnerabilities that will pose direct and immediate loss of system confidentiality, availability, or integrity that must be resolved to avoid revocation of MUOS Ground System Authority to Operate.

Funding is to procure Ground System updates for each of the six ground sites in each fiscal year through the future year defense program to correct hardware and software deficiencies. The ground system updates address hardware/ software defect resolution and hardware degradation. The hardware/software updates are installed at each ground site as part of the MUOS operational end item requirements; ground system defect resolution includes associated engineering, integration, test, and delivery efforts to address cybersecurity vulnerabilities, and corrects issues to ensure readiness levels support the warfighter narrowband SATCOM requirements. To address hardware degradation, obsolete items will be replaced in phases in each fiscal year and can include global positioning system-based Timing and Frequency Distribution System, data back-up and recovery, and Earth Terminal Antenna components. Obsolete software components include Microsoft Operating System (OS)-based workstations and servers, Solaris OS based components, and Redhat/LINUX OS-based components. Addressing software obsolescence may also include hardware replacement to support the new OS.

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MUOS00 / Mobile User Objective System	Modification Number / Title: 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	45.371	46.833	101.147	0.000	101.147	48.912	49.876	51.142	52.215	-	395.496
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	45.371	46.833	101.147	0.000	101.147	48.912	49.876	51.142	52.215	-	395.496
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**45.371**	**46.833**	**101.147**	**0.000**	**101.147**	**48.912**	**49.876**	**51.142**	**52.215**	**-**	**395.496**
(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:

MUOS Ground System Updates are to correct functional and cyber defects as well as address hardware and software obsolescence. Configuration updates are deployed as modification kits which are variable in scope and require significant non-recurring engineering and integration testing to ensure hardware and software system updates do not adversely impact ongoing operations. A specific modification kit's scope depends primarily on the magnitude and severity of the functional defects, cybersecurity defects and vulnerabilities, and obsolescence.

Funding is for five Ground System updates for each of the four Radio Access Facilities and three Ground System updates for each of the two Satellite Control Facilities in each fiscal year through the FYDP. The Ground System updates address hardware and software defect resolution as well as hardware degradation. The hardware/software updates are installed at each ground site as part of the MUOS operational end item requirements; ground system defect resolution includes associated engineering, integration, test, and delivery efforts to address cybersecurity vulnerabilities, and corrects issues to ensure readiness levels support the warfighter narrowband SATCOM requirements. To address hardware degradation, obsolete items will be replaced in phases in each fiscal year and can include GPS-based Timing and Frequency Distribution System, data back-up and recovery, and Earth Terminal Antenna components. Obsolete software components include Microsoft OS-based workstations and servers, Solaris OS based components, and Redhat/LINUX OS-based components. Addressing software obsolescence may also include hardware replacement to support the new OS.

Additionally, funding is for integration and testing of the necessary hardware and software upgrade options which address system deficiencies.

Milestone/Development Status

Development is on-track to meet system update targets and timelines.

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: MUOS00 / Mobile User Objective System	Modification Number / Title: 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: None	Modification Type: Other	Related RDT&E PEs: 1203109SF

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*	Qty *(Each)* / Total Cost *($ M)*
RDT&E PE #												
1203109SF	- / -	- / 110.493	- / 110.142	- / 230.785	- / -	- / 230.785	- / 435.486	- / 595.552	- / 676.140	- / 604.844	- / -	- / 2,763.442
Procurement												
Modification Item 1 of 6: 10 SOPS OL-D (Schriever SFB)												
A Kits												
Recurring												
10 SOPS OL-D (Schriever SFB):INSTALL KITS Group A (Active)	- / -	5 / 0.829	3 / 0.857	3 / 1.899	- / -	3 / 1.899	3 / 0.896	3 / 0.913	3 / 0.937	3 / 0.956	- / -	23 / 7.287
Subtotal: Recurring	*- / -*	*- / 0.829*	*- / 0.857*	*- / 1.899*	*- / -*	*- / 1.899*	*- / 0.896*	*- / 0.913*	*- / 0.937*	*- / 0.956*	*- / -*	*- / 7.287*
Subtotal: 10 SOPS OL-D (Schriever SFB)	*- / -*	*- / 0.829*	*- / 0.857*	*- / 1.899*	*- / -*	*- / 1.899*	*- / 0.896*	*- / 0.913*	*- / 0.937*	*- / 0.956*	*- / -*	*- / 7.287*
Modification Item 2 of 6: Geraldton Ground Site												
A Kits												
Recurring												
Geraldton Ground Site:INSTALL KITS Group A (Active)	- / -	5 / 6.287	5 / 6.494	5 / 14.394	- / -	5 / 14.394	5 / 6.790	5 / 6.924	5 / 7.101	5 / 7.250	- / -	35 / 55.240
Subtotal: Recurring	*- / -*	*- / 6.287*	*- / 6.494*	*- / 14.394*	*- / -*	*- / 14.394*	*- / 6.790*	*- / 6.924*	*- / 7.101*	*- / 7.250*	*- / -*	*- / 55.240*
Subtotal: Geraldton Ground Site	*- / -*	*- / 6.287*	*- / 6.494*	*- / 14.394*	*- / -*	*- / 14.394*	*- / 6.790*	*- / 6.924*	*- / 7.101*	*- / 7.250*	*- / -*	*- / 55.240*
Modification Item 3 of 6: HQ (Port Hueneme) 10 SOPS												
A Kits												
Recurring												
HQ (Port Hueneme) 10 SOPS:INSTALL KITS Group A (Active)	- / -	5 / 0.932	3 / 0.963	3 / 2.134	- / -	3 / 2.134	3 / 1.007	3 / 1.027	3 / 1.053	3 / 1.075	- / -	23 / 8.191
Subtotal: Recurring	*- / -*	*- / 0.932*	*- / 0.963*	*- / 2.134*	*- / -*	*- / 2.134*	*- / 1.007*	*- / 1.027*	*- / 1.053*	*- / 1.075*	*- / -*	*- / 8.191*
Subtotal: HQ (Port Hueneme) 10 SOPS	*- / -*	*- / 0.932*	*- / 0.963*	*- / 2.134*	*- / -*	*- / 2.134*	*- / 1.007*	*- / 1.027*	*- / 1.053*	*- / 1.075*	*- / -*	*- / 8.191*
Modification Item 4 of 6: Niscemi Ground Site												
A Kits												
Recurring												
Niscemi Ground Site:INSTALL KITS Group A (Active)	- / -	5 / 6.337	5 / 6.545	5 / 14.509	- / -	5 / 14.509	5 / 6.845	5 / 6.979	5 / 7.157	5 / 7.307	- / -	35 / 55.679
Subtotal: Recurring	*- / -*	*- / 6.337*	*- / 6.545*	*- / 14.509*	*- / -*	*- / 14.509*	*- / 6.845*	*- / 6.979*	*- / 7.157*	*- / 7.307*	*- / -*	*- / 55.679*
Subtotal: Niscemi Ground Site	*- / -*	*- / 6.337*	*- / 6.545*	*- / 14.509*	*- / -*	*- / 14.509*	*- / 6.845*	*- / 6.979*	*- / 7.157*	*- / 7.307*	*- / -*	*- / 55.679*
Modification Item 5 of 6: Northwest (VA) Ground Site												

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: None	**Modification Type:** Other	**Related RDT&E PEs:** 1203109SF

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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)*
A Kits												
Recurring												
Northwest (VA) Ground Site:INSTALL KITS Group A (Active)	- / -	5 / 8.638	5 / 8.922	5 / 19.777	- / -	5 / 19.777	5 / 9.330	5 / 9.513	5 / 9.756	5 / 9.961	- / -	35 / 75.897
Subtotal: Recurring	*- / -*	*- / 8.638*	*- / 8.922*	*- / 19.777*	*- / -*	*- / 19.777*	*- / 9.330*	*- / 9.513*	*- / 9.756*	*- / 9.961*	*- / -*	*- / 75.897*
Subtotal: Northwest (VA) Ground Site	*- / -*	*- / 8.638*	*- / 8.922*	*- / 19.777*	*- / -*	*- / 19.777*	*- / 9.330*	*- / 9.513*	*- / 9.756*	*- / 9.961*	*- / -*	*- / 75.897*
Modification Item 6 of 6: Wahiawa Ground Site												
A Kits												
Recurring												
Wahiawa Ground Site:INSTALL KITS Group A (Active)	- / -	5 / 20.194	5 / 20.855	5 / 46.228	- / -	5 / 46.228	5 / 21.806	5 / 22.237	5 / 22.806	5 / 23.285	- / -	35 / 177.411
Subtotal: Recurring	*- / -*	*- / 20.194*	*- / 20.855*	*- / 46.228*	*- / -*	*- / 46.228*	*- / 21.806*	*- / 22.237*	*- / 22.806*	*- / 23.285*	*- / -*	*- / 177.411*
Subtotal: Wahiawa Ground Site	*- / -*	*- / 20.194*	*- / 20.855*	*- / 46.228*	*- / -*	*- / 46.228*	*- / 21.806*	*- / 22.237*	*- / 22.806*	*- / 23.285*	*- / -*	*- / 177.411*
Subtotal: Procurement, All Modification Items	*- / -*	*- / 43.217*	*- / 44.636*	*- / 98.941*	*- / -*	*- / 98.941*	*- / 46.674*	*- / 47.593*	*- / 48.810*	*- / 49.834*	*- / -*	*- / 379.705*
Installation												
Modification Item 1 of 6: 10 SOPS OL-D (Schriever SFB)	- / -	5 / 0.234	3 / 0.239	3 / 0.235	- / -	3 / 0.235	3 / 0.240	3 / 0.245	3 / 0.250	3 / 0.255	- / -	23 / 1.698
Modification Item 2 of 6: Geraldton Ground Site	- / -	5 / 0.449	5 / 0.458	5 / 0.463	- / -	5 / 0.463	5 / 0.458	5 / 0.468	5 / 0.477	5 / 0.488	- / -	35 / 3.261
Modification Item 3 of 6: HQ (Port Hueneme) 10 SOPS	- / -	5 / 0.232	3 / 0.236	3 / 0.237	- / -	3 / 0.237	3 / 0.240	3 / 0.245	3 / 0.250	3 / 0.255	- / -	23 / 1.695
Modification Item 4 of 6: Niscemi Ground Site	- / -	5 / 0.423	5 / 0.431	5 / 0.437	- / -	5 / 0.437	5 / 0.436	5 / 0.444	5 / 0.454	5 / 0.464	- / -	35 / 3.089
Modification Item 5 of 6: Northwest (VA) Ground Site	- / -	5 / 0.285	5 / 0.291	5 / 0.292	- / -	5 / 0.292	5 / 0.301	5 / 0.306	5 / 0.314	5 / 0.320	- / -	35 / 2.109
Modification Item 6 of 6: Wahiawa Ground Site	- / -	5 / 0.531	5 / 0.542	5 / 0.542	- / -	5 / 0.542	5 / 0.563	5 / 0.575	5 / 0.587	5 / 0.599	- / -	35 / 3.939
Subtotal: Installation	*- / -*	*30 / 2.154*	*26 / 2.197*	*26 / 2.206*	*- / -*	*26 / 2.206*	*26 / 2.238*	*26 / 2.283*	*26 / 2.332*	*26 / 2.381*	*- / -*	*186 / 15.791*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**45.371**	**46.833**	**101.147**	**0.000**	**101.147**	**48.912**	**49.876**	**51.142**	**52.215**	**-**	**395.496**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 1 of 6: 10 SOPS OL-D (Schriever SFB)

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.234	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.234
FY 2023	- / -	- / -	3 / 0.239	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.239
FY 2024	- / -	- / -	- / -	3 / 0.235	- / -	3 / 0.235	- / -	- / -	- / -	- / -	- / -	3 / 0.235
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.240	- / -	- / -	- / -	- / -	3 / 0.240
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.245	- / -	- / -	- / -	3 / 0.245
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.250	- / -	- / -	3 / 0.250
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.255	- / -	3 / 0.255
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.234	3 / 0.239	3 / 0.235	- / -	3 / 0.235	3 / 0.240	3 / 0.245	3 / 0.250	3 / 0.255	- / -	23 / 1.698

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	0	23
Out	0	-	2	2	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	0	23

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 2 of 6: Geraldton Ground Site

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.449	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.449
FY 2023	- / -	- / -	5 / 0.458	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.458
FY 2024	- / -	- / -	- / -	5 / 0.463	- / -	5 / 0.463	- / -	- / -	- / -	- / -	- / -	5 / 0.463
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.458	- / -	- / -	- / -	- / -	5 / 0.458
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.468	- / -	- / -	- / -	5 / 0.468
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.477	- / -	- / -	5 / 0.477
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.488	- / -	5 / 0.488
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.449	5 / 0.458	5 / 0.463	- / -	5 / 0.463	5 / 0.458	5 / 0.468	5 / 0.477	5 / 0.488	- / -	35 / 3.261

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35
Out	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 3 of 6: HQ (Port Hueneme) 10 SOPS

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.232
FY 2023	- / -	- / -	3 / 0.236	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.236
FY 2024	- / -	- / -	- / -	3 / 0.237	- / -	3 / 0.237	- / -	- / -	- / -	- / -	- / -	3 / 0.237
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.240	- / -	- / -	- / -	- / -	3 / 0.240
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.245	- / -	- / -	- / -	3 / 0.245
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.250	- / -	- / -	3 / 0.250
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.255	- / -	3 / 0.255
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.232	3 / 0.236	3 / 0.237	- / -	3 / 0.237	3 / 0.240	3 / 0.245	3 / 0.250	3 / 0.255	- / -	23 / 1.695

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	0	23
Out	0	-	2	2	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	0	23

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**
Modification Item 4 of 6: Niscemi Ground Site		

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.423
FY 2023	- / -	- / -	5 / 0.431	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.431
FY 2024	- / -	- / -	- / -	5 / 0.437	- / -	5 / 0.437	- / -	- / -	- / -	- / -	- / -	5 / 0.437
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.436	- / -	- / -	- / -	- / -	5 / 0.436
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.444	- / -	- / -	- / -	5 / 0.444
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.454	- / -	- / -	5 / 0.454
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.464	- / -	5 / 0.464
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.423	5 / 0.431	5 / 0.437	- / -	5 / 0.437	5 / 0.436	5 / 0.444	5 / 0.454	5 / 0.464	- / -	35 / 3.089

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35
Out	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 5 of 6: Northwest (VA) Ground Site

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.285	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.285
FY 2023	- / -	- / -	5 / 0.291	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.291
FY 2024	- / -	- / -	- / -	5 / 0.292	- / -	5 / 0.292	- / -	- / -	- / -	- / -	- / -	5 / 0.292
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.301	- / -	- / -	- / -	- / -	5 / 0.301
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.306	- / -	- / -	- / -	5 / 0.306
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.314	- / -	- / -	5 / 0.314
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.320	- / -	5 / 0.320
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.285	5 / 0.291	5 / 0.292	- / -	5 / 0.292	5 / 0.301	5 / 0.306	5 / 0.314	5 / 0.320	- / -	35 / 2.109

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35
Out	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** MUOS00 / Mobile User Objective System	**Modification Number / Title:** 1 / Mobile User Objective System
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 6 of 6: Wahiawa Ground Site

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, AZ
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 2

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Nov 2021	Nov 2022	Nov 2023	Nov 2024	Nov 2025	Nov 2026	Nov 2027
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	5 / 0.531	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.531
FY 2023	- / -	- / -	5 / 0.542	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.542
FY 2024	- / -	- / -	- / -	5 / 0.542	- / -	5 / 0.542	- / -	- / -	- / -	- / -	- / -	5 / 0.542
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.563	- / -	- / -	- / -	- / -	5 / 0.563
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.575	- / -	- / -	- / -	5 / 0.575
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.587	- / -	- / -	5 / 0.587
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.599	- / -	5 / 0.599
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	5 / 0.531	5 / 0.542	5 / 0.542	- / -	5 / 0.542	5 / 0.563	5 / 0.575	5 / 0.587	5 / 0.599	- / -	35 / 3.939

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35
Out	0	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	-	2	2	1	0	35

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch

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: 176		

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	3	5	3	10	-	10	8	7	8	7	-	51
Gross/Weapon System Cost *($ in Millions)*	978.671	1,287.347	1,024.803	2,142.846	-	2,142.846	2,187.077	2,066.860	2,194.791	2,222.690	1,301.206	15,406.291
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	978.671	1,287.347	1,024.803	2,142.846	-	2,142.846	2,187.077	2,066.860	2,194.791	2,222.690	1,301.206	15,406.291
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**978.671**	**1,287.347**	**1,024.803**	**2,142.846**	**-**	**2,142.846**	**2,187.077**	**2,066.860**	**2,194.791**	**2,222.690**	**1,301.206**	**15,406.291**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	326.224	257.469	341.601	214.285	-	214.285	273.385	295.266	274.349	317.527	-	302.084

Description:

The National Security Space Launch (NSSL) program is a Major Defense Acquisition Program (MDAP) Acquisition Category (ACAT) 1D program that acquires launch services to provide critical space support to satisfy Department of Defense (DoD) warfighter, national security, and other United States Government (USG) space lift missions. The NSSL program will leverage USG inter-agency and commercial cooperation by utilizing the total launch vehicle performance and maximizing on-orbit opportunities that will expedite delivery of critical capabilities. The NSSL program provides satellite delivery to specific orbits through certified Launch Vehicle (LV) providers.

NSSL procures launch services and is not a weapon system. The program provides launch capacity for the Government National Launch Forecast (NLF) requirements, but does not take ownership of any specific launch hardware. This program does not require and does not include advance procurement or initial spares. Flyaway Unit Cost is not applicable and Weapon System Unit Cost are not representative due to the mix of vehicles in the program. The requirements for NSSL launch services are derived from multiple spacecraft requirements. The Space Force procurement satisfies National Security Space (NSS) unique capabilities for NSS requirements that are beyond the scope of current commercial capability. "To Complete" projections include only known requirements at this time.

The Space Force, National Reconnaissance Office (NRO), and the National Aeronautics and Space Administration (NASA) have a coordinated strategy for certification of New Entrants to launch payloads in support of NSS and other USG requirements. The Space Force continues to actively work with potential New Entrants to reliably meet NSS requirements. The Government may award early integration contracts to ensure each potential offeror's launch system is compatible with the intended payload. The Space Force's intent is to compete as much as possible all launch service procurements where more than one certified provider can service the required orbit.

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch
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: 176	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	National Security Space Launch	P-5a, P-21	A		3 / 978.671	5 / 1,287.347	3 / 1,024.803	10 / 2,142.846	- / -	10 / 2,142.846
P-40	**Total Gross/Weapon System Cost**				**3 / 978.671**	**5 / 1,287.347**	**3 / 1,024.803**	**10 / 2,142.846**	**- / -**	**10 / 2,142.846**

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

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

Justification:
FY 2024 NSSL procurement funding will acquire launch services to provide critical space support required to satisfy Department of Defense (DoD) warfighter, national security, and other US Government space lift missions while leveraging commercial innovation. Launch services include, but are not limited to, launch vehicle manufacturing, launch operations (tasks such as systems and factory engineering, program management, launch and range activities, and infrastructure), mission success incentives, recurring costs for Orbital Debris Mitigation Standard Practice, secondary payload adapters (i.e. multi-mission manifest adapters) and integration onto NSS or other USG agency procured launch services, launch propellants, independent mission assurance, evaluation and certification of potential New Entrants, early integration activities, studies and analysis, program office support and any other related activities to support mission requirements to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain.

Launch services will be ordered under the Phase 2 contracts. Launch Service Support (LSS) is part of the Phase 2 contracts and will include NSS readiness, fleet surveillance, fleet mission assurance, and unique NSS infrastructure requirements (vertical integration, classified facilities, etc).

The Space Force is responsible for funding its own missions. Space Development Agency (SDA) launch services are procured under a separate Program Element. Generally, non-Space Force launch services are funded within their respective entities (e.g. NRO, Navy).

The Space Vehicle (SV) Program offices and other partners are responsible for funding mission unique requirements including hardware, integration and testing. Funding for mission unique requirements that span across NSSL and the SV Program Office will be shared between both organizations.

Funding for this exhibit is contained in PE 1203953SF.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	3	5	3	10	-	10
Gross/Weapon System Cost *($ in Millions)*	978.671	1,287.347	1,024.803	2,142.846	-	2,142.846
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	978.671	1,287.347	1,024.803	2,142.846	-	2,142.846
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**978.671**	**1,287.347**	**1,024.803**	**2,142.846**	**-**	**2,142.846**
(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)*	326.224	257.469	341.601	214.285	-	214.285

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)*
Launch - Launch End Item Cost																		
Recurring Cost																		
Launch Services(†)	165.464	3	496.392	151.904	5	759.519	173.768	3	521.304	163.256	10	1,632.558	-	-	-	163.256	10	1,632.558
Launch Services Support	-	-	288.802	-	-	313.473	-	-	296.410	-	-	291.888	-	-	-	-	-	291.888
Enterprise Systems Engineering & Integration	-	-	68.699	-	-	72.846	-	-	56.327	-	-	53.396	-	-	-	-	-	53.396
Mission Assurance	-	-	83.356	-	-	107.196	-	-	106.344	-	-	115.088	-	-	-	-	-	115.088
Subtotal: Recurring Cost	-	-	*937.249*	-	-	*1,253.034*	-	-	*980.385*	-	-	*2,092.930*	-	-	-	-	-	*2,092.930*
Subtotal: Launch - Launch End Item Cost	**-**	**-**	***937.249***	**-**	**-**	***1,253.034***	**-**	**-**	***980.385***	**-**	**-**	***2,092.930***	**-**	**-**	**-**	**-**	**-**	***2,092.930***
Support - Support End Item Cost																		
Other Support	-	-	0.239	-	-	2.807	-	-	2.381	-	-	2.929	-	-	-	-	-	2.929
A&AS	-	-	18.079	-	-	15.845	-	-	13.888	-	-	18.331	-	-	-	-	-	18.331
FFRDC	-	-	23.104	-	-	15.661	-	-	28.149	-	-	28.656	-	-	-	-	-	28.656
Subtotal: Support - Support End Item Cost	**-**	**-**	***41.422***	**-**	**-**	***34.313***	**-**	**-**	***44.418***	**-**	**-**	***49.916***	**-**	**-**	**-**	**-**	**-**	***49.916***
Gross/Weapon System Cost	**326.224**	**3**	**978.671**	**257.469**	**5**	**1,287.347**	**341.601**	**3**	**1,024.803**	**214.285**	**10**	**2,142.846**	**-**	**-**	**-**	**214.285**	**10**	**2,142.846**

Remarks:

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

A Memorandum of Understanding (MOU) between the NRO and the Air Force, dated 7 October 2011, as updated per Addendum 2 of 13 January 2018, specifies a 60/40 Air Force/NRO share ratio for Federally Funded Research and Development Center (FFRDC) Mission Assurance. An updated Interagency Agreement (IA) between the Space and Missile Systems Center, Launch Enterprise, and the National Reconnaissance Office (NRO), dated 1 October 2019 provides a 75/25 cost share agreement for the Phase 2 Launch Service Support.

FY22, FY23 and FY24 Launch Services and Launch Service Support amounts reflect Firm Fixed Price values based on Phase 2 average contract pricing estimate methodology.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: NSSL00 / National Security Space Launch	Item Number / Title [DODIC]: National Security Space Launch

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Launch Services(†)		2021	SpaceX/ULA / CA/CO	Various	SSC, LA AFB, CA	Mar 2021	Apr 2024	3	171.364	Y		May 2019
Launch Services(†)		2022	SpaceX/ULA / CA/CO	Various	SSC, LA AFB, CA	May 2022	May 2024	5	151.904	Y		May 2019
Launch Services(†)		2023	SpaceX/ULA / CA/CO	Various	SSC, LA AFB, CA	May 2023	May 2025	3	173.768	Y		May 2019
Launch Services(†)		2024	SpaceX/ULA / CA/CO	Various	SSC, LA AFB, CA	Jan 2024	Jan 2026	10	163.256	Y		May 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch

Cost Elements (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launch Services																															
	1	2021	AF	3	0	3						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	1	2022	AF	5	0	5																				A -	-	-	-	-	5
	1	2023	AF	3	0	3																									3
	1	2024	AF	10	0	10																									10
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024											BALANCE
										Calendar Year 2023														Calendar Year 2024								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launch Services																														
	1	2021	AF	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	0
	1	2022	AF	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	3
	1	2023	AF	3	0	3								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	1	2024	AF	10	0	10																A	-	-	-	-	-	-	-	-	10
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch

Cost Elements (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launch Services																															
	1	2021	AF	3	3	0																									0
	1	2022	AF	5	2	3	-	-	-	-	-	1	2																		0
	1	2023	AF	3	0	3	-	-	-	-	-	-	-	3																	0
	1	2024	AF	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** NSSL00 / National Security Space Launch	**Item Number / Title [DODIC]:** National Security Space Launch

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2024	1-8-5 For 2024	MAX For 2024	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	SpaceX/ULA - CA/CO	10	10	10	1	4	24	28	0	0	0	0

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** NUDETS / NUDET Detection System

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 1203913SF	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	6.690	7.062	0.000	-	0.000	0.000	0.000	0.000	0.000	-	13.752
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	6.690	7.062	0.000	-	0.000	0.000	0.000	0.000	0.000	-	13.752
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**6.690**	**7.062**	**0.000**	**-**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-**	**13.752**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The United States Nuclear Detonation (NUDET) Detection System (USNDS) provides a near real-time worldwide, highly survivable/endurable capability to detect, locate, and report any nuclear detonations in the atmosphere of the earth or in near space. The USNDS Operational Requirements Document, dated 21 January 2004, documents the requirements for space-based NUDET detection. Space-based NUDET detection is also mandated by Public Law 110-181, dated 28 January 2008, which directs the Secretary of Defense to maintain the capability for space-based nuclear detection at or above 2008 capability levels. USNDS supports NUDET detection requirements across five mission areas: Integrated Tactical Warning and Attack Assessment (ITW/AA), Nuclear Force Management (NFM), Space Control, Treaty Monitoring, and a classified mission.

The USNDS 6 program is jointly sponsored and funded by the Department of Defense (DoD), through the Air Force, and the Department of Energy (DOE), through the National Nuclear Security Administration (NNSA) and its Nuclear Detonation Detection (NA-22) office, respectively. NNSA/NA-22 supplies USNDS space sensors as Government Furnished Equipment to the AF USNDS Program Office, which is responsible for all acquisition and systems engineering, integration and test activities on space vehicles (SVs), to include Global Positioning System (GPS) and additional hosts, and their supporting ground control segments. The AF directly funds the procurement of the USNDS 6 ground segment (described below).

DoD funds its contribution to the USNDS program in Program Element (PE) 1203913F with Research, Development, Test and Evaluation, Space Procurement AF, Procurement Space Force, and Operations and Maintenance dollars. USNDS payload integration onto GPS satellites is funded in the GPS Space Segment PE 1203265SF for GPS III SVs and PE 1203269SF for GPS IIIF SVs.

USNDS consists of space sensors and complex ground segments. The space segment sensors, funded by DOE, consists of three nuclear detection sensor payloads: the Radiation Detection Capability (RADEC) payload for Defense Support Program satellites, the Global Burst Detection payload for Medium Earth Orbit platforms (GPS satellites), and the Space Atmospheric Burst Reporting System payload for GEO platforms (classified GEO hosts). Together, these sensors and associated communications capabilities provided by the host satellites comprise the global NUDET space segment detection capability for the USNDS. Space sensors communicate NUDET indications to the fixed ground segment (the RADEC Data Processor, the Integrated Correlation and Display System) and the deployable mobile ground segment (survivable Ground NDS Terminals), and survivable/endurable Universal Ground NDS Terminals, when fielded. The ground segment provides ground receiving analysis and reporting capabilities to national authorities, commands, and forward users as well as Department of State for the Treaty Monitoring and Verification mission.

The ground control segment is being modernized and continuously improved through an incremental evolutionary acquisition approach. Fact of life upgrades include operating system changes (Red Hat Linux) to meet information assurance requirements and hardware/software technology refreshes.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** NUDETS / NUDET Detection System	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 1203913SF	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Funding for this exhibit is contained in PE 1203913SF, NUDET Detection System (SPACE).

Justification:
No FY 2024 funding requested.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** PTES00 / PTES HUB

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	6	12	-	12	12	-	-	-	-	30
Gross/Weapon System Cost *($ in Millions)*	-	7.406	42.464	56.482	-	56.482	56.052	11.846	0.000	0.000	-	174.250
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	7.406	42.464	56.482	-	56.482	56.052	11.846	0.000	0.000	-	174.250
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**7.406**	**42.464**	**56.482**	**-**	**56.482**	**56.052**	**11.846**	**0.000**	**0.000**	**-**	**174.250**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	7.077	4.707	-	4.707	4.671	-	-	-	-	5.808

Description:

The global threat of electronic warfare attacks against space systems will expand in the coming years in both number and types of weapons. Threat development will very likely focus on jamming capabilities against dedicated military satellite communications (MILSATCOM). To address this critical threat, the Space Force is developing the Protected Tactical Enterprise Service (PTES) ground system to provide worldwide, anti-jam, Low Probability of Intercept (LPI) communications for tactical warfighters. PTES will use the Protected Tactical Waveform (PTW) to provide anti-jam communications via military and commercial satellite systems for tactical users in all Services. Initially, PTES will utilize the Wideband Global SATCOM (WGS) system and then will expand to commercial satellites and the Protected Tactical SATCOM (PTS) system.

The PTES program is developing a Mission Management System (MMS), a Key Management System (KMS), and Joint Hubs (JHs) to enable PTW via transponded WGS satellites, with planned extension to commercial SATCOM. Production-representative PTW modems for user terminals were developed by the Protected Tactical Service Field Demonstration (PTSFD) and separately acquired by each Service and by international partners.

For the PTW Over WGS effort, the Space Force is utilizing FY 2016 National Defense Authorization Act (NDAA), Section 804, Middle Tier of Acquisition (MTA) for Rapid Prototyping (RP) authority to deliver a PTES Operational Demonstration meeting IOC threshold capabilities in FY 2022. The PTES RP addresses an operational need in the Pacific region by achieving IOC in FY 2024 via WGS. IOC provides ground elements for PTW over WGS and consists of PTES installation at two WGS Gateway sites utilizing one WGS satellite. The Navy Wideband Anti-Jam Modem System (WAMS), the Air Force-Army Anti-Jam Modem (A3M), and other stakeholders rely on PTES to provide PTW ground infrastructure. At FOC, PTES will provide worldwide PTW operations using up to all WGS satellites.

To meet the warfighter requirements for protected tactical MILSATCOM and identified capability gaps, Procurement funding will be used to acquire the JHs necessary to operate the system at Full Operational Capability (FOC). PTES requires two JHs, at separate locations, to operate at Initial Operational Capability (IOC). Each JH requires site surveys, equipment purchases (modems, End Cryptographic Unit (ECU), etc.), equipment installation, and equipment testing.

For PTW Over Commercial effort, the PTES system will achieve IOC providing resilient commercial capacity and path diversity across ground elements for PTW over commercial architectures in FY 2026. PTES will reach FOC in FY 2028 providing robust PTW operations using commercial satellites in various orbits, to include GEO and Medium Earth Orbit (MEO).

Procurement funding will be used to acquire additional JHs or JH Variants (JHVs) required in FY 2025 for PTW Over Commercial to enable JH/JHV integration with commercial SATCOM systems in Geosynchronous Orbit (GEO). Two JHs for PTW Over WGS were realigned from the FY 2025 quantity to the FY 2024 quantity in order to accelerate completion of the baseline effort necessary to operate the

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: PTES00 / PTES HUB	
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		

PTES WGS capability at FOC. In FY 2025, 6 JHs were added to for the PTW Over Commercial efforts beginning in FY 2023 to support PTW over GEO commercial satellites and integration with the PTES system.

Procurement funds will also be used for Interim Contractor Support (ICS), to include purchase of initial spares and support equipment, to enable seamless RP transition into sustainment.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, maximizing innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Funding for this exhibit is contained in PE 1206760SF. This program has associated Research Development Test and Evaluation funding in PE 1206760SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** PTES00 / PTES HUB

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	PTES HUB				- / -	- / 7.406	- / 42.464	- / 56.482	- / -	- / 56.482
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 7.406**	**6 / 42.464**	**12 / 56.482**	**- / -**	**12 / 56.482**

*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:

In FY 2024 the PTES program will procure, assemble, test and install a total of twelve JHs at six different DoD gateway sites that will expand PTW coverage. Each Joint Hub consists of three racks of hardware equipment that includes modems, ECUs and spares. These twelve Joint Hubs are procured with PTES procurement funds. Equipment installation, equipment testing, integration, and Other Government Costs are included in this effort. FY 2024 funding will allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate through the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

Two JHs were realigned from the PTW Over WGS FY 2025 quantity to the FY 2024 quantity in order to accelerate completion of the baseline effort necessary to operate the PTES WGS capability at FOC. In FY 2025 quantity, 6 JHs were added for the PTW Over Commercial efforts beginning in FY 2023 to support PTW over GEO commercial satellites and integration with the PTES system.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** PTES00 / PTES HUB	**Aggregated Items Title:** PTES HUB

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
PTES HUB																				
PTES Ground	A		-	-	-	-	-	7.406	7.077	6	42.464	4.707	12	56.482	-	-	-	4.707	12	56.482
Subtotal: PTES HUB			**-**	**-**	**-**	**-**	**-**	***7.406***	**-**	**-**	***42.464***	**-**	**-**	***56.482***	**-**	**-**	**-**	**-**	**-**	***56.482***
Total			**-**	**-**	**-**	**-**	**-**	**7.406**	**-**	**-**	**42.464**	**-**	**-**	**56.482**	**-**	**-**	**-**	**-**	**-**	**56.482**

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

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** RSLP00 / Rocket Systems Launch Program

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 1206860SF

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	30.429	39.145	74.848	-	74.848	72.840	67.589	69.305	70.759	-	424.915
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	30.429	39.145	74.848	-	74.848	72.840	67.589	69.305	70.759	-	424.915
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**30.429**	**39.145**	**74.848**	**-**	**74.848**	**72.840**	**67.589**	**69.305**	**70.759**	**-**	**424.915**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Rocket Systems Launch Program (RSLP) procures small launch services to deliver affordable, flexible spacelift for small payloads. The small launch program complements the National Security Space Launch (NSSL) program with multiple options to acquire dedicated spacelift and rideshare services for developmental, responsive, demonstration, and small operational space vehicles. The Spacelift Capability Production Document approved 31 May 2016 supports the requirement for small spacelift capability (less than 8,000 lbs to low Earth through geostationary transfer orbit).

In FY 2019, the Department of the Air Force started using this procurement line for small launch services procurement requirements. Previously, small launch funding resided in the satellite program budgets. This change aligned launch service procurement activities with the necessary funding under Space Systems Command (SSC) Launch Enterprise. This approach is now consistent across Space Force procured launch services and allows the Space Force the flexibility to manage dynamic manifest requirements as new launch service providers emerge.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. SSC is transforming the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

This program does not require and does not include advance procurement or initial spares. Flyaway Unit Cost is not applicable and Weapon System Unit Cost are not representative due to the mix of vehicles in the program. RSLP procures launch services and is not a weapon system. The program provides launch capacity for the Government National Launch Forecast requirements, but does not take ownership of any specific launch vehicle. The requirements for small launch services are derived from multiple spacecraft requirements.

Funding for this exhibit is contained in PE 1206860SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** RSLP00 / Rocket Systems Launch Program

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 1206860SF

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	Rocket Systems Launch Program				- / -	- / 30.429	- / 39.145	- / 74.848	- / -	- / 74.848
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 30.429**	**- / 39.145**	**- / 74.848**	**- / -**	**- / 74.848**

*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:
RSLP procurement funding supports small launch and rideshare services to satisfy Department of Defense (DoD) warfighter, national security, responsive, and other Government Spacelift missions. This includes independent mission assurance, early integration activities and analysis/support, technical refresh, and allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: RSLP00 / Rocket Systems Launch Program	Aggregated Items Title: Rocket Systems Launch Program

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Small Launch Services																				
Small Launch Services	A		-	-	-	-	-	1.052	-	-	29.696	-	-	62.990	-	-	-	-	-	62.990
Congressional Add	A		-	-	-	-	-	20.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Small Launch Services			**-**	**-**	**-**	**-**	**-**	***21.052***	**-**	**-**	***29.696***	**-**	**-**	***62.990***	**-**	**-**	**-**	**-**	**-**	***62.990***
Mission Assurance																				
Mission Assurance	A		-	-	-	-	-	2.652	-	-	2.700	-	-	4.858	-	-	-	-	-	4.858
Subtotal: Mission Assurance			**-**	**-**	**-**	**-**	**-**	***2.652***	**-**	**-**	***2.700***	**-**	**-**	***4.858***	**-**	**-**	**-**	**-**	**-**	***4.858***
Launch Support																				
Launch Support	A		-	-	-	-	-	6.725	-	-	6.749	-	-	7.000	-	-	-	-	-	7.000
Subtotal: Launch Support			**-**	**-**	**-**	**-**	**-**	***6.725***	**-**	**-**	***6.749***	**-**	**-**	***7.000***	**-**	**-**	**-**	**-**	**-**	***7.000***
Total			**-**	**-**	**-**	**-**	**-**	**30.429**	**-**	**-**	**39.145**	**-**	**-**	**74.848**	**-**	**-**	**-**	**-**	**-**	**74.848**

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 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SDALCH / Space Development Agency Launch
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	7	5	-	5	4	3	2	2	-	23
Gross/Weapon System Cost *($ in Millions)*	-	0.000	746.288	529.468	-	529.468	498.405	412.147	241.559	246.626	-	2,674.493
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	746.288	529.468	-	529.468	498.405	412.147	241.559	246.626	-	2,674.493
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**746.288**	**529.468**	**-**	**529.468**	**498.405**	**412.147**	**241.559**	**246.626**	**-**	**2,674.493**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	106.613	105.894	-	105.894	124.601	137.382	120.780	123.313	-	116.282

Description:

The Space Development Agency (SDA), established in 2019, has a mission that begins and ends with the war-fighter. SDA orchestrates the development, fielding, and operation of the Department of Defense's (DoD's) future threat-driven Proliferated Warfighter Space Architecture (PWSA) and uses novel approaches to accelerate the delivery of military space capabilities necessary to ensure U.S. technological and military advantage in space for national defense. SDA will deliver capabilities to joint war-fighting forces in two-year tranches. SDA began to procure launch services for Tranche 1 satellites in Fiscal Year (FY) 2022 for data transport capability and will procure launch services in FY 2023 - FY 2027 for Tranche 1 and future Tranche capabilities.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SDALCH / Space Development Agency Launch
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	Space Development Agency Launch		A		- / -	- / 0.000	7 / 746.288	5 / 529.468	- / -	5 / 529.468
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 0.000**	**7 / 746.288**	**5 / 529.468**	**- / -**	**5 / 529.468**

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

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

Justification:
FY 2023 Congressional marks resulted in a net gain of $432.000 million. SDALCH (Space Development Agency Launch) was increased by $216.000 million to procure launch services for two launches for Tranche 1 capabilities. SDALCH was also increased by $216.000 million as a result of Congressional Directed Transfer from SDA's RDT&E PE 1206448SF.

FY 2022 funded one launch service for Tranche 1 under the United States Space Force (USSF) National Security Space Launch (NSSL) program for Tranche 1 capabilities.

FY 2023 funding procures launch services for seven launches under the USSF NSSL program for delivery of Tranche 1 capabilities.

FY 2024 funding will procure launch services for five launches under the USSF NSSL program for delivery of Tranche 1 and Tranche 2 capabilities.

The Space Development Agency (SDA) aims to provide responsive and resilient space capabilities in support of the Joint Force and as part of Joint All Domain Command and Control (JADC2), thus increasing our war- fighters' lethality, maneuverability, and survivability. In addition to launch services, this line may fund mission unique requirements such as launch vehicle hardware, procurement of flight representative interface hardware for pre-launch integration and test, early integration studies to document Space Vehicle-Launch Vehicle (SV-LV) interface controls and provide the predicted launch vehicle environments to the SV providers, final integration analysis and interface control documents, encapsulation and payload attach fitting mate operations of the SV integrated payload stack, and conduct launch and orbit insertion operations.

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SDALCH / Space Development Agency Launch	**Item Number / Title [DODIC]:** Space Development Agency Launch
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	7	5	-	5
Gross/Weapon System Cost *($ in Millions)*	-	0.000	746.288	529.468	-	529.468
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	746.288	529.468	-	529.468
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**746.288**	**529.468**	**-**	**529.468**
(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)*	-	-	106.613	105.894	-	105.894

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Launch - Space Development Agency Launch Cost																		
Non Recurring Cost																		
NSSL Launch Services	-	-	-	-	-	0.000	106.612	7	746.288	105.894	5	529.468	-	-	-	105.894	5	529.468
Subtotal: Non Recurring Cost	-	-	-	-	-	*0.000*	-	-	*746.288*	-	-	*529.468*	-	-	-	-	-	*529.468*
Subtotal: Launch - Space Development Agency Launch Cost	**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	***746.288***	**-**	**-**	***529.468***	**-**	**-**	**-**	**-**	**-**	***529.468***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**0.000**	**106.613**	**7**	**746.288**	**105.894**	**5**	**529.468**	**-**	**-**	**-**	**105.894**	**5**	**529.468**

Remarks:
SDA will utilize the United States Space Force (USSF) National Security Space Launch (NSSL) services. The funding represents SDA's contribution to the cost of those services.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SPCMOD / Space Mods

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	11.852	56.325	68.257	166.596	-	166.596	78.191	53.598	46.883	47.831	-	529.533
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	11.852	56.325	68.257	166.596	-	166.596	78.191	53.598	46.883	47.831	-	529.533
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**11.852**	**56.325**	**68.257**	**166.596**	**-**	**166.596**	**78.191**	**53.598**	**46.883**	**47.831**	**-**	**529.533**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Space Mods Space funding enables advanced Command and Control (C2) Battle Management, Intelligence Surveillance and Reconnaissance (ISR), and Command, Control, Communications, Computers, and Intelligence (C4I) systems to conduct effective predictive battle space awareness, facilitate precision attack, and compress the sensor-to-shooter kill chain. Permanent modifications are configuration changes to in-service systems and equipment that correct materiel or other deficiencies, or that add or delete capability. Safety modifications correct deficiencies that produce hazards to personnel, systems, or equipment. This budget line covers both new and on-going modification efforts for space equipment and systems. Modification installation funding is budgeted in the year the installation occurs.

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

The following Program Elements are represented in this Budget Line Item:

PE 1203160SF DEFENSE METEOROLOGICAL SATELLITE PROGRAM (DMSP):

The DEFENSE METEOROLOGICAL SATELLITE PROGRAM (DMSP), COMMAND, CONTROL, and COMMUNICATIONS (C3) GROUND SYSTEM (GS) (DC3GS) is the ground system that supports DMSP, a fully operational program supporting a broad range of national security users who require timely and accurate global weather information. DMSP is a DoD-only assured source of global weather data providing visible and infrared cloud cover imagery (1/3 nautical miles (nm) constant resolution) and other meteorological, oceanographic, land surface, and space environmental data. DMSP satellites are flown in sun-synchronous,450nm polar-orbits to meet mission requirements (sun-synchronous means the satellites cross the equator at the same local sun time on each of their 14 orbits/day). Critical DC3GS component spares have been depleted, parts cannibalized, and are no longer sustainable. Therefore, DC3GS subsystems to be addressed include, but are not limited to the Link/2 Communication System, and Mission Planning and scheduling System. Current DMSP planned fly-out date is FY2027, recent guidance has been that if the system is capable, it may continue to fly past that date. This selective re-capitalization effort is intended to ensure the DC3GS remains viable and serviceable to support DMSP while it remains in flight.

PE 1203165SF NAVSTAR GPS (SPACE AND CONTROL SEGMENTS):

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

NAVSTAR GLOBAL POSITIONING SYSTEM (GPS) provides highly accurate time and three dimensional position and velocity information to an unlimited number of users anywhere on or above the surface of the earth, in any weather. This system supplies highly accurate position, velocity, timing, and United States Nuclear Detonation (NUDET) Detection System (USNDS) information to properly equipped air, land, sea, and space-based users worldwide. The GPS system consists of three segments: space, control, and user equipment. The Operational Control System (OCS) is part of the control segment and requires modifications to replace high failure rate parts and preclude system operational degradation. Without these mods, aging and obsolete equipment will excessively degrade, ultimately resulting in system failure. System failure or even partial system failure will cause a loss of operational availability and the transmission of inaccurate navigation data to worldwide users, resulting in potential loss of life and/or operational equipment, including multi-million dollar satellites. OCS is required to operate until the Next Generation Operational Control System (OCX) transitions to operations, to include support for GPS III and fielding of Military GPS User Equipment (MGUE).

PE 1203699SF Shared Early Warning System (SEWS):

The Shared Early Warning System (SEWS) provides accurate and timely missile warning information generated by space-based infrared sensors. This information is distributed to three combatant commands (CCMDs)--US European Command (USEUCOM), US Central Command (USCENTCOM), and US Indo-Pacific Command (USINDOPACOM); North Atlantic Treaty Organization (NATO); and multiple foreign partner nations located within each of the serviced CCMDs. U.S. forces and foreign partner nations receive missile warning data via a dedicated communications network flowing from the Centralized Distribution Facility (CDF) at Peterson SFB, CO to secondary distribution facilities located with the CCMDs and distribution hubs located in foreign partner nation operations centers. Data segregation for the foreign nation partners is maintained through the use of approved cross domain solutions with unique rule sets that reflect Office of the Secretary of Defense policy regarding the dissemination of missile warning data to foreign nations. SEWS utilizes Defense Information Systems Agency (DISA)-mandated data processing capabilities, new missile warning message formats, and cyber security requirements set forth in Department of Defense Instruction 8500.1 (DODI 8500.1).

PE 1203873SF Ballistic Missile Defense Radars (BMD Radars):

COBRA DANE is the most powerful, sensitive, and accurate Ground-based Midcourse Defense (GMD) radar and the premier Ballistic Missile Defense (BMD) radar. At the same time, it is the most accurate and capable phased array available to the Space Surveillance Network (SSN) for cataloging hazardous and difficult-to-track satellites and space debris objects that clutter the near-earth orbital regime that cannot be detected by most other SSN tracking assets.

COBRA DANE has two primary missions. One is to support US Strategic Command's (USSTRATCOM) BMD mission by providing midcourse coverage for the Ballistic Missile Defense System (BMDS). COBRA DANE detects Intercontinental Ballistic Missiles (ICBMs) and Sea-Launched Ballistic Missiles (SLBMs), classifies reentry vehicles (RVs) and other missile objects, provides real-time information to the GMD Fire Control (GFC), and provides tracking of threat ballistic missiles with sufficient accuracy to commit the launch of interceptors and to update the target tracks to the interceptor while the interceptor is in flight.

COBRA DANE's other primary mission is to support US Space Command's (USSPACECOM) Space Domain Awareness (SDA) mission by detecting, tracking, correlating, and characterizing man-made resident space objects, primarily in the Low-Earth Orbit (LEO) regime, including space debris and early observation of New Foreign Launches (NFLs). It operates as part of the larger SSN and provides metric observation data to its command and control nodes: the Combined Space Operations Center (CSpOC) and the Distributed Space Command and Control - Dahlgren (DSC2-D). COBRA DANE also supports USSPACECOM's Space Object Identification (SOI) mission by providing narrowband radar data of man-made resident space objects in the LEO regime. SOI information is used to ascertain the mission and operational status of various payloads and aids in forecasting maneuvers or deorbits. COBRA DANE mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly difficult to maintain on a 45-year-old radar due to non-availability of replacement parts. Subsystems are no longer supported by the original
equipment manufacturers. In addition, transmitter groups, traveling wave tubes, time delay units and all associated components and spares require replacement. Due to the limited demand rates for spares, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

PE 1203906SF Cheyenne Mountain Complex:

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

The North American Aerospace Defense Command (NORAD) Cheyenne Mountain Complex (NCMC) - Integrated Tactical Warning/Attack Assessment (ITW/AA) system provides timely, unambiguous, and continuous warning and attack assessment of air, missile and space threats to North America, and geographical theaters. This system integrates and correlates missile launch and air surveillance information from certified sources to assess the nature of an enemy launch/attack and issue warnings to the President of the United States, Canadian National Leadership, United States Secretary of Defense, National Military Command Center and war-fighting Combatant Commanders. NCMC-ITW/AA and Legacy Space Command and Control (C2) systems provide NORAD/US Northern Command (USNORTHCOM), USSTRATCOM, and USSPACECOM command structures with the information management, decision aids, and connectivity required to monitor, assess, plan, and execute assigned strategic, space operations, and missile defense missions. It provides Nuclear C2 and detonation detection.

PE 1203909SF Ballistic Missile Early Warning System (BMEWS):

BMEWS consists of ground based, AN/FPS-132 Upgraded Early Warning Radars (UEWRs) located at Thule Air Base, Greenland; Clear Space Force Station (SFS), AK; and Royal Air Force (RAF) Fylingdales, UK which provide Missile, Defense, Missile Warning, and SDA data to multiple users. The radar system provides USSTRATCOM with credible ITW/AA data on all Intercontinental Ballistic Missiles (ICBMs) penetrating the coverage area including Launch and Predicted Impact (L&PI) data for attack assessment and response determination. The radar system also supports the SSN 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 Combined 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 UEWR mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly more difficult to maintain due to availability of replacement parts and obsolete Commercial-off-the-Shelf (COTS)-based subsystems that are no longer supported by the original equipment manufacturers. In addition, radar transmit and receive components, processing equipment, power distribution elements, and other radar front-end equipment are 30+ years old, highly inefficient, and require replacement. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime in order to troubleshoot and repair. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

PE 1203912SF SEA-LAUNCHED BALLISTIC MISSILE (SLBM) RADAR WARNING SYSTEM:

The primary mission of the SLBM Radar Warning System provides USSTRATCOM with credible ITW/AA data on all SLBMs penetrating the coverage area. This data includes an estimation of L&PI locations and times. The secondary mission is to provide the Cheyenne Mountain Space Force Station, CO (CMSFS) and other users with ITW/AA data on ICBMs penetrating the coverage area. Additionally, Perimeter Acquisition Radar Attack Characterization System (PARCS) and UEWRs support the SDA mission by providing near-earth satellite surveillance, tracking, and identification as required by the Space Control Center, Alternate Space Control Center, and the Joint Intelligence Center. The sensors have an operational availability requirement of 98 percent.

The SLBM Detection and Warning System currently consists of: a) the AN/FPQ-16 PARCS, located at Cavalier SFS, ND, and b) the AN/FPS-132 UEWRs located at Beale AFB, CA and Cape Cod SFS, MA. Additionally, there is a site for testing located in the Centralized Integration Support Facility (CISF) at Peterson Space Force Base (SFB), CO. The UEWR and PARCS mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly more difficult to maintain due to availability of replacement parts and obsolete COTS-based subsystems that are no longer supported by the original equipment manufacturers. In addition, radar transmit & receive components, processing equipment, and power distribution elements, and other radar front-end equipment are 30+ years old, highly inefficient, and require replacement. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime in order to troubleshoot and repair. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

PE 1203940SF Space Situation Awareness Operations (SSAO):

Ionospheric Ground Sensors (IGS) - SSAO enables surveillance of space objects and monitoring of space environmental conditions that can affect space warfighting operations. The Space Force operates and sustains several systems and tools to monitor space environmental conditions, including Ionospheric Ground Sensors (IGS) such as Next Generation Ionosonde (NEXION), Ionospheric Scintillation Total Electron Content (TEC) Observer (ISTO), and other associated equipment. IGS contributes to Intelligence, Surveillance, Reconnaissance, Environment (ISRE), permitting full space domain knowledge, which enables Space Domain Awareness (SDA) Data Integration & Exploitation (DI&E) key to timely Battle Management Command and Control (BMC2) decision making/tasking. 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 an equatorial network of ground-based, passive, COTS receivers that measure ionospheric scintillation and total electronic content in real-time by analyzing Ultra High Frequency (UHF) and Global Positioning System (GPS) L-band satellite signals.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

PE 1203940SF Space Situation Awareness Operations (SSAO):

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). SOON provides optical observance of the sun and RSTN provides Radio Frequency (RF) monitoring of the sun and is an all-weather, ground-based, stand-alone system for the detection of solar bursts. SEON provides 24/7 real-time data of solar activity that interferes with radio frequency bands of satellites, radars, radio communications, and power grids. Moreover, it provides data on solar phenomena that have the potential to damage military surveillance and warning satellites, damaged satellite tracking systems, and affect RF and satellite orbital prediction management. This solar data is also used in the prediction of increases or decreases in solar activity.

PE 1203940SF Space Situation Awareness Operations (SSAO):

TAPOUT is a Low Earth Orbit (LEO) tactical SDA system which consists of a Hardware Layer, a Data Layer, and an Application layer. The planned Hardware Layer is the result of two years of prototyping, analysis, and collaboration with industry. Sixteen sites have been identified to field daytime/nighttime capable ground based Electro-Optical (EO) sensors which will be remotely commanded and controlled through the Data and Application layers. The Data Layer consists of multi-source and multi-intelligence data feeds which are aggregated at a classified level where predictive threat warning occurs. The Application Layer consists of a series of Threat Warning and C2 applications at multiple classification levels which enable monitoring, and tactical command and control of the network.

PE 1205111SF Weather Service:

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 AF Weather Weapon System (AFWWS).

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SPCMOD / Space Mods
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1203906SF / **Other Related Program Elements:** 1203699SF
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	NAVSTAR Global Positioning				- / 0.000	- / 0.081	- / 1.379	- / 0.000	- / 0.000	- / 0.000
P-40a	Shared Early Warning System (SEWS)				- / -	- / 0.363	- / 0.384	- / 0.385	- / -	- / 0.385
P-40a	Ballistic Missile Defense Radars				- / -	- / 36.622	- / 18.116	- / -	- / -	- / -
P-3a	1 / Ballistic Missile Defense Radars (Reliability & Maintainability)		A		- / -	- / 0.000	- / 0.000	- / 51.779	- / 0.000	- / 51.779
P-40a	Cheyenne Mountain Complex				- / 2.115	- / 0.587	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40a	Cheyenne Mountain Complex				- / -	- / -	- / 0.104	- / 0.103	- / -	- / 0.103
P-40a	Ballistic Missile Early Warning				- / 8.439	- / 0.000	- / 0.000	- / 4.946	- / 0.000	- / 4.946
P-3a	1 / Ballistic Missile Early Warning (Reliability & Maintainability)		A		- / -	- / 0.000	- / 0.000	- / 11.829	- / 0.000	- / 11.829
P-3a	2 / Ballistic Missile Early Warning (Reliability & Maintainability)		A		- / -	- / 0.000	- / 0.000	- / 20.544	- / 0.000	- / 20.544
P-40a	Ballistic Missile Early Warning				- / -	- / 18.066	- / 29.119	- / 64.470	- / -	- / 64.470
P-40a	Submarine-Launched Ballistic Missile				- / 0.798	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / PARCS Block 02 (Reliability & Maintainability)		A		- / 0.500	- / 0.606	- / 3.995	- / 6.466	- / 0.000	- / 6.466
P-40a	Space Situational Awareness Operations				- / -	- / -	- / 13.888	- / 5.300	- / -	- / 5.300
P-40a	Weather Service				- / -	- / -	- / 1.272	- / 0.774	- / -	- / 0.774
P-40	**Total Gross/Weapon System Cost**				**- / 11.852**	**- / 56.325**	**- / 68.257**	**- / 166.596**	**- / -**	**- / 166.596**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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	NAVSTAR Global Positioning				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1.460
P-40a	Shared Early Warning System (SEWS)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Ballistic Missile Defense Radars				- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / Ballistic Missile Defense Radars (Reliability & Maintainability)		A		- / 30.121	- / 7.865	- / 0.000	- / 0.000	- / -	- / 89.765
P-40a	Cheyenne Mountain Complex				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.702
P-40a	Cheyenne Mountain Complex				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Ballistic Missile Early Warning				- / 18.000	- / 14.438	- / 21.803	- / 36.801	- / 0.000	- / 104.427
P-3a	1 / Ballistic Missile Early Warning (Reliability & Maintainability)		A		- / 0.100	- / 0.300	- / 0.000	- / 0.000	- / -	- / 12.229
P-3a	2 / Ballistic Missile Early Warning (Reliability & Maintainability)		A		- / 19.269	- / 20.705	- / 14.545	- / 0.300	- / -	- / 75.363
P-40a	Ballistic Missile Early Warning				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Submarine-Launched Ballistic Missile				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.798
P-3a	1 / PARCS Block 02 (Reliability & Maintainability)		A		- / 6.330	- / 5.797	- / 5.919	- / 6.018	- / -	- / 35.631
P-40a	Space Situational Awareness Operations				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Weather Service				- / -	- / -	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 78.191**	**- / 53.598**	**- / 46.883**	**- / 47.831**	**- / -**	**- / 529.533**

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

*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, Space Mods P-40A Category BPP Block 01 Update Item Array Group Drivers, is a new start.
This program, Space Mods P-40A Category Thule A8 Repair Item J-Plant HEMP Shielding, is a new start.
This program, Space Mods P-40A Category Thule A8 Repair Item Power Generation and Distro System, is a new start.
This program, 1203909SF, P-3A Mod BMEWS-UEWR-Block-04, Ballistic Missile Early Warning, is a new start.
This program, 1203909SF, P-3A Mod BMEWS-UEWR-Block-05, Ballistic Missile Early Warning (BMEWS), is a new start.
This program, 1203909SF, P-3A Mod BMEWS-UEWR-Block-06, Ballistic Missile Early Warning, is a new start.

Defense Meteorological Satellite Program (SPACE):

PE 1203160SF: No FY 2024 funding requested.

NAVSTAR Global Positioning (P-40a):

FY 2023 funding procures GPS Architecture Evolution Plan (AEP), GPS Information Network (GIN), and Launch Anomaly Resolution and Disposal Operations (LADO) commercial equipment that has become obsolete/unsupportable or requires upgrades. Funding will procure equipment for the OCS ground sites including the Master Control Station (MCS), Alternate Master Control Station (AMCS), four Ground Antennas (GAs), six Monitor Stations (MSs), a contractor lab facility, and the Telecommunications Simulator Test Set (TSTS). Modifications include required procurement, nonrecurring engineering, installation, testing, configuration management, security, quality assurance and technical documentation. Funding also procures cybersecurity enhancements to mitigate shortfalls in the legacy system. Funding sustains OCS until OCX transitions to operations, to include support for GPS III and fielding of MGUE. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

This effort is funded in PE 1203165SF NAVSTAR GPS (Space and Control Segments).

* "NAVSTAR GPS: PE 1203165SF: No FY 2024 funding requested."

Shared Early Warning System (SEWS) (P-40a):

FY 2024 will fund ongoing program support costs for SEWS modification efforts and will fund capital equipment replacement to replace outdated components such as, but not limited to, virtual processors, routers, intrusion detection software, network logging software, and other material solutions required for operational and cybersecurity continuity. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. SEWS utilizes both COTS and Government Off-the-Shelf (GOTS) equipment to comply with emerging threat capability requirements. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

This effort is funded in PE 1203699S Shared Early Warning System (SEWS).

Ballistic Missile Defense Radars (P-40a):

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

COBRA DANE Block 00: FY 2024 will fund ongoing program support costs for COBRA DANE modification efforts and will fund Capital Equipment Replacement of unsupportable mission and support equipment and initial spares of 12 transmitter groups and sub-groups to include, but not limited to, Transmitter Group Replacement, Traveling Wave Tubes, Radio Frequency Level Sensors and associated components. Production and installation of these transmitter groups and sub-groups have been limited based on funding availability. Increased funding in FY 2024 accelerates production of critical modernization components to reduce both sustainment costs due to maintaining multiple different hardware configurations and also reduce risk of obsolescence-induced failures in the Cobra Dane system's 12 transmitter groups. Due to limited spares demand rates and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

This Effort is funded in PE 1203873SF - Ballistic Missile Defense Radars (BMDR)

Cheyenne Mountain Complex (P-40a):

NORAD CHEYENNE MOUNTAIN COMPLEX-INTEGRATED TACTICAL WARNING/ATTACK ASSESSMENT (NCMC-ITW/AA) SYSTEMS: FY 2024 funding procures replacement for reliability and maintainability of the information systems hardware and associated systems software for the NCMC-ITW/AA system and continues program support. Program support 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. 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. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

This effort is funded in PE 1203906SF - Cheyenne Mountain Complex.

Ballistic Missile Early Warning System (BMEWS)/PAVE PHASED ARRAY WARNING SYSTEM (PAVE PAWS) (BPP) Block 00, Block 01, Block 03, Block 04, Block 05 and Block 06 (P-40a):

Block 00: FY 2024 will fund ongoing program support costs associated with the Sub-Array Power Supply (SAPS) - Energy Savings (SAPS-ES) upgrade, which replaces legacy and obsolete SAPS units, and any unsupportable mission and support equipment, initial spares, and lifetime buys of spares. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

Block 01: FY 2024 will Fund program support cost associated with Array Group Drivers (AGD) upgrade, which replaces legacy and obsolete AGD units, and any unsupportable mission and support equipment, initial spares, and lifetime buys of spares. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

Block 03: FY 2024 will fund ongoing program support costs for UEWR modification efforts and will initiate procurement of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, Frequency Timing Standards (FTS) and associated components. The Department of Defense (DoD)/Chief Information Officer (CIO) mandated timing transition to the Defense Information Systems Agency (DISA) Timing & Synchronization (TSSC) system. This project will replace the current GPS antennas utilized for timing and synchronization of UEWR by integrating the UEWR FTS with the recently deployed TSSC system. Due to the limited spares, demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Funding will allow 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, etc.

Block 04: FY 2024 will fund ongoing program support costs for UEWR modification efforts and will initiate procurement and deployment of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, the Transitional Receiver Exciter (T-REX) and associated components. The T-REX replaces legacy and obsolete REX cabinets. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. 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, etc.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1203906SF	**Other Related Program Elements:** 1203699SF
Line Item MDAP/MAIS Code: N/A		

Block 05: FY 2024 will fund program support costs for UEWR modification efforts and will initiate procurement and deployment of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, the Digital Receiver Exciter (DREX)/Digital Radio Frequency Modulator (DRFM) and associated components. The DREX/DRFM replaces legacy equipment to include the Receive Beam Former (RBF), Radio Frequency Monitor (RFM) and Receiver-Exciter (REX). Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Funding will enable the 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, etc.

Block 06: FY 2024 will fund ongoing UEWR modification efforts and will initiate procurement and deployment of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, the Chatter Box and associated components. The Chatter Box upgrade is required by the October 2021 DoD Chief Information Officer (CIO) memo that directs all programs to migrate all components from Time Division Multiplex data transport to Internet Protocol-based services prior to the expiration of their current contract for legacy services and no later than March 2025 for increased cybersecurity. In addition, the Chatter Box program replaces legacy and obsolete External Communications Processor and External Interface Gateway cabinets. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. 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, etc.

This effort is funded in PE 1203909SF Ballistic Missile Early Warning System (BMEWS) and PE 1203912SF Sea Launched Ballistic Missile (SLBM) Detection and Warning System.

Perimeter Acquisition Radar Attack Characterization System (PARCS) Block 02 (P-3a):

FY 2024 will fund Block 02 by continuing modifications to the PARCS system for the replacement of unsupportable and unreliable components to include, but not limited to, the PARCS Mission Data Processor, Radar Transmitter, Antenna Group, Exciter Group, Radio Frequency Signal Processor Group, Performance Monitor Group, Radar Return Generator Group, Digital Data Group, and Radar Controller Group, Power Amplifiers, and any associated initial spares. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Additionally, FY 2024 will fund ongoing program support costs for the Block 02 program. PARCS funding procures replacement components for unsupportable, unobtainable, and unreliable system components. PARCS equipment is composed of custom-built components that became obsolete in the 1980s. Most spare parts for this system are no longer available and have no logistics tail. Without replacements there is a high risk of mission failure and/or unacceptable downtime for repair. To best ensure operational availability, replacement projects are performed in phases targeting the highest risk components of the subsystems. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

The effort is funded in PE 1203912SF Sea Launched Ballistic Missile (SLBM) Detection and Warning System.

Thule A8 Repair (P-40a):

Thule A8 Repair: FY 2024 funding will upgrade the Thule radar power generation and distribution system to ensure power stability of the UEWR radar.

This effort is funded in PE 1203909SF Ballistic Missile Early Warning System (BMEWS).

Ionospheric Ground Sensors (IGS) (P-40a):

IGS: FY 2024 funding will complete one NEXION site feasibility survey and procurement/installation of one NEXION sensor to support space domain awareness (SDA).

The effort is funded in PE 1203940SF Space Situation Awareness Operations (SSAO).

TAPOUT (P-40a):

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPCMOD / Space Mods	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203906SF	Other Related Program Elements: 1203699SF
Line Item MDAP/MAIS Code: N/A		

TAPOUT: FY 2024 funding will procure spares, site-preparation, leasing expenses and shipping of peripheral Information Technology (IT) and optical equipment.

The effort is funded in PE 1203940SF Space Situation Awareness Operations.

Solar Electro-Optical Network (SEON) (P-40a):

SEON: FY 2024 funding will start the work required to remote the operations and the analysis of the RSTN data to decrease the manpower required at each solar site and modernize the RSTN technology. Continued work on the installation and transportation of the new RIMS pedestals. 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.

The effort is funded in PE 1203940SF Space Situation Awareness Operations.

AN/UMQ-13 Meteorological Data Station (MARK IV-B) (P-40a):

MARK IV-B: FY 2024 funding will procure one radome to protect MARK IV-B assets at Kapaun Air Base (AB), Germany, from adverse weather and corrosive elements. It will also fund installation of the procured radome as well as installing another previously-stored radome which had been purchased in 2021. The current radomes at Kapaun AB are over 20 years old and are approaching end of life.

The effort is funded in PE 1205111SF Weather Service.

PE 1208736SF STARCOM Range and Aggressors:

This effort is a new start in FY23. Funding in this program provides realistic and relevant threat replication, through Commercial off-the-shelf (COTS) GPS and SATCOM equipment. Current equipment is over 10 years old, failing, antiquated and therefore does not accurately replicate existing adversary threats due to system limitations. Procurement funding will provide a 166% increase SATCOM availability and 120% increase in GPC electronic attack assets used to replicate adversary counter-space operations in support of Joint training audiences. Funds provide recapitalization of five SATCOM equipment assets and eight GPS assets within FY23-25; FY26 and beyond provides a steady-state sustainment and replacement cycle for both SATCOM and GPS assets. Without funding, the space aggressors are at risk of significant degradation in their threat replication capabilities. Aging equipment will prevent the space aggressors from providing a realistic threat environment and degrade our ability to train joint and coalition partners in a contested, degraded, operationally-limited space environment.

Efforts with funding starting in FY 2025 through FY 2028 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 2025 Cost Delta: 4.371 million
(b) FY 2026 Cost Delta: 4.493 million
(c) FY 2027 Cost Delta: 4.616 million
(d) FY 2028 Cost Delta: 4.712 million
(e) FY Total Cost Delta: 207.158 million

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Modification Items Title:** NAVSTAR Global Positioning

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
NAVSTAR-1 / NAVSTAR GPS-OCS COTS UPGRADE			-	-	-	-	-	0.081	-	-	1.379	-	-	-	-	-	-	-	-	-
Total			**-**	**-**	**0.000**	**-**	**-**	**0.081**	**-**	**-**	**1.379**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2025			FY 2026			FY 2027			FY 2028			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)
NAVSTAR-1 / NAVSTAR GPS-OCS COTS UPGRADE			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.460
Total			**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.460**

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
NAVSTAR-1 / NAVSTAR GPS-OCS COTS UPGRADE	Blackhawk and IIR Flight Nav Systems	Capability Improvement

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Items Title:** Shared Early Warning System (SEWS)

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
SEWS																				
Outdated Component Replacement Modification	A		-	-	-	0.363	1	0.363	0.384	1	0.384	0.385	1	0.385	-	-	-	0.385	1	0.385
Subtotal: SEWS			**-**	**-**	**-**	**-**	**-**	***0.363***	**-**	**-**	***0.384***	**-**	**-**	***0.385***	**-**	**-**	**-**	**-**	**-**	***0.385***
Total			**-**	**-**	**-**	**-**	**-**	**0.363**	**-**	**-**	**0.384**	**-**	**-**	**0.385**	**-**	**-**	**-**	**-**	**-**	**0.385**

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Items Title:** Ballistic Missile Defense Radars

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Block 00																				
Transmitter Section	A		-	-	-	36.622	1	36.622	18.116	1	18.116	-	-	-	-	-	-	-	-	-
Subtotal: Block 00			**-**	**-**	**-**	**-**	**-**	***36.622***	**-**	**-**	***18.116***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**-**	**-**	**-**	**36.622**	**-**	**-**	**18.116**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Modification Number / Title: 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	51.779	0.000	51.779	30.121	7.865	0.000	0.000	-	89.765
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	51.779	0.000	51.779	30.121	7.865	0.000	0.000	-	89.765
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**51.779**	**0.000**	**51.779**	**30.121**	**7.865**	**0.000**	**0.000**	**-**	**89.765**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PE 1203873SF Ballistic Missile Defense Radars (BMD Radars):

For transparency budget exhibit moved from P-40A to P-3A to provide lower-level detail.

COBRA DANE is the most powerful, sensitive, and accurate Ground-based Midcourse Defense (GMD) radar and the premier Ballistic Missile Defense (BMD) radar. At the same time, it is the most accurate and capable phased array available to the Space Surveillance Network (SSN) for cataloging hazardous and difficult-to-track satellites and space debris objects that clutter the near-earth orbital regime that cannot be detected by most other SSN tracking assets.

COBRA DANE has two primary missions. One is to support US Strategic Command's (USSTRATCOM) BMD mission by providing midcourse coverage for the Ballistic Missile Defense System (BMDS). COBRA DANE detects Intercontinental Ballistic Missiles (ICBMs) and Sea-Launched Ballistic Missiles (SLBMs), classifies reentry vehicles (RVs) and other missile objects, provides real-time information to the GMD Fire Control (GFC), and provides tracking of threat ballistic missiles with sufficient accuracy to commit the launch of interceptors and to update the target tracks to the interceptor while the interceptor is in flight.

COBRA DANE's other primary mission is to support US Space Command's (USSPACECOM) Space Domain Awareness (SDA) mission by detecting, tracking, correlating, and characterizing man-made resident space objects, primarily in the Low-Earth Orbit (LEO) regime, including space debris and early observation of New Foreign Launches (NFLs). It operates as part of the larger SSN and provides metric observation data to its command-and-control nodes: the Combined Space Operations Center (CSpOC) and the Distributed Space Command and Control - Dahlgren (DSC2-D). COBRA DANE also supports USSPACECOM's Space Object Identification (SOI) mission by providing narrowband radar data of man-made resident space objects in the LEO regime. SOI information is used to ascertain the mission and operational status of various payloads and aids in forecasting maneuvers or deorbits. COBRA DANE mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly difficult to maintain on a 45-year-old radar due to non-availability of replacement parts. Subsystems are no longer supported by the original equipment manufacturers. In addition, transmitter groups, traveling wave tubes, time delay units and all associated components and spares require replacement. Due to the limited demand rates for spares, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime. Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Milestone/Development Status

N/A

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: NA	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 3: Radio Frequency Level Sensor												
B Kits												
Recurring												
Radio Frequency Level Sensor:EQUIPMENT Group B (Active)	- / -	- / -	- / -	1 / 0.239	- / -	1 / 0.239	2 / 0.608	- / -	- / -	- / -	- / -	3 / 0.847
Subtotal: Recurring	- / -	- / -	- / -	- / *0.239*	- / -	- / *0.239*	- / *0.608*	- / -	- / -	- / -	- / -	- / *0.847*
Subtotal: Radio Frequency Level Sensor	- / -	- / -	- / -	- / *0.239*	- / -	- / *0.239*	- / *0.608*	- / -	- / -	- / -	- / -	- / *0.847*
Modification Item 2 of 3: Transmitter Group												
B Kits												
Recurring												
Transmitter Group:EQUIPMENT Group B (Active)	- / -	- / -	- / -	2 / 15.293	- / -	2 / 15.293	1 / 9.084	- / -	- / -	- / -	- / -	3 / 24.377
Subtotal: Recurring	- / -	- / -	- / -	- / *15.293*	- / -	- / *15.293*	- / *9.084*	- / -	- / -	- / -	- / -	- / *24.377*
Subtotal: Transmitter Group	- / -	- / -	- / -	- / *15.293*	- / -	- / *15.293*	- / *9.084*	- / -	- / -	- / -	- / -	- / *24.377*
Modification Item 3 of 3: Traveling Wave Tubes												
B Kits												
Recurring												
Traveling Wave Tubes:EQUIPMENT Group B (Active)	- / -	- / -	- / -	4 / 27.887	- / -	4 / 27.887	1 / 10.735	- / -	- / -	- / -	- / -	5 / 38.622
Subtotal: Recurring	- / -	- / -	- / -	- / *27.887*	- / -	- / *27.887*	- / *10.735*	- / -	- / -	- / -	- / -	- / *38.622*
Subtotal: Traveling Wave Tubes	- / -	- / -	- / -	- / *27.887*	- / -	- / *27.887*	- / *10.735*	- / -	- / -	- / -	- / -	- / *38.622*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / *43.419*	- / -	- / *43.419*	- / *20.427*	- / -	- / -	- / -	- / -	- / *63.846*
Support *(All Modification Items)*												
A&AS	- / -	- / -	- / -	- / 2.300	- / -	- / 2.300	- / 2.400	- / 2.532	- / -	- / -	- / -	- / 7.232
OTHER GOVT	- / -	- / -	- / -	- / 6.039	- / -	- / 6.039	- / 6.220	- / 4.368	- / -	- / -	- / -	- / 16.627
Subtotal: Support	- / -	- / -	- / -	- / *8.339*	- / -	- / *8.339*	- / *8.620*	- / *6.900*	- / -	- / -	- / -	- / *23.859*
Installation												
Modification Item 1 of 3: Radio Frequency Level Sensor	- / -	- / -	- / -	1 / 0.021	- / -	1 / 0.021	2 / 0.042	- / -	- / -	- / -	- / -	3 / 0.063
Modification Item 2 of 3: Transmitter Group	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.832	1 / 0.665	- / -	- / -	- / -	3 / 1.497
Modification Item 3 of 3: Traveling Wave Tubes	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	3 / 0.300	- / -	- / -	- / -	5 / 0.500
Subtotal: Installation	- / -	- / -	- / -	*1 / 0.021*	- / -	*1 / 0.021*	*6 / 1.074*	*4 / 0.965*	- / -	- / -	- / -	*11 / 2.060*

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: NA	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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)*
Total												
Total Cost (Procurement + Support + Installation)	-	0.000	0.000	51.779	0.000	51.779	30.121	7.865	0.000	0.000	-	89.765

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 1 of 3: Radio Frequency Level Sensor

Manufacturer Information

Manufacturer Name: Diversified Technologies, Inc	Manufacturer Location: Bedford, MA
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 6

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Jan 2024	Jan 2025			
Delivery Dates			Jul 2024	Jul 2025			

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	1 / 0.021	- / -	1 / 0.021	- / -	- / -	- / -	- / -	- / -	1 / 0.021
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.042	- / -	- / -	- / -	- / -	2 / 0.042
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.021	- / -	1 / 0.021	2 / 0.042	- / -	- / -	- / -	- / -	3 / 0.063

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				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	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3
Out	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 2 of 3: Transmitter Group

Manufacturer Information

Manufacturer Name: : Diversified Technologies, Inc	Manufacturer Location: Bedford, MA
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 20

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Jan 2024	Jan 2025			
Delivery Dates			Sep 2025	Sep 2026			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.832	- / -	- / -	- / -	- / -	2 / 0.832
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.665	- / -	- / -	- / -	1 / 0.665
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.832	1 / 0.665	- / -	- / -	- / -	3 / 1.497

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	0	3
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	0	3

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Defense Radars
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**
Modification Item 3 of 3: Traveling Wave Tubes		

Manufacturer Information

Manufacturer Name: Raytheon Company	Manufacturer Location: Colorado Springs, CO
Administrative Leadtime *(in Months)*: 1	Production Leadtime *(in Months)*: 20

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Jan 2024	Jan 2025			
Delivery Dates			Sep 2025	Sep 2026			

Installation Information

Method of Implementation: Contract Field Team

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	2 / 0.200	- / -	- / -	- / -	4 / 0.400
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	- / -	- / -	- / -	1 / 0.100
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	3 / 0.300	- / -	- / -	- / -	5 / 0.500

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	0	5
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	0	5

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Aggregated Modification Items Title: Cheyenne Mountain Complex

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04			-	-	2.115	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-
NCMCB5 / Block 05			-	-	-	-	-	0.387	-	-	-	-	-	-	-	-	-	-	-	-
Total			**-**	**-**	**2.115**	**-**	**-**	**0.587**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2025			FY 2026			FY 2027			FY 2028			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)
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.315
NCMCB5 / Block 05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.387
Total			**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**2.702**

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
NCMCB4 / NORAD Cheyenne Mountain Complex Block 04	NORADCheyenneMountainComplex	Reliability & Maintainability
NCMCB5 / Block 05	NORADCheyenneMountainComplex	Reliability & Maintainability

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Items Title:** Cheyenne Mountain Complex

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
NCMC																				
Hardware	A		-	-	-	-	-	-	0.104	1	0.104	0.103	1	0.103	-	-	-	0.103	1	0.103
Subtotal: NCMC			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.104***	**-**	**-**	***0.103***	**-**	**-**	**-**	**-**	**-**	***0.103***
Total			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.104**	**-**	**-**	**0.103**	**-**	**-**	**-**	**-**	**-**	**0.103**

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

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Modification Items Title:** Ballistic Missile Early Warning

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
BMEWS-UEWR-Block-05 / Ballistic Missile Early Warning (BMEWS)			-	-	-	-	-	-	-	-	-	-	-	0.668	-	-	-	-	-	0.668
BMEWS-UEWR-Block-06 / Ballistic Missile Early Warning			-	-	-	-	-	-	-	-	-	-	-	4.278	-	-	-	-	-	4.278
BMEWS-1 / BPP Block 02			-	-	4.439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMEWS-3 / DPSP			-	-	4.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			**-**	**-**	**8.439**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**4.946**	**-**	**-**	**0.000**	**-**	**-**	**4.946**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2025			FY 2026			FY 2027			FY 2028			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)
BMEWS-UEWR-Block-05 / Ballistic Missile Early Warning (BMEWS)			-	-	8.981	-	-	10.617	-	-	21.803	-	-	36.801	-	-	-	-	-	78.870
BMEWS-UEWR-Block-06 / Ballistic Missile Early Warning			-	-	9.019	-	-	3.821	-	-	-	-	-	-	-	-	-	-	-	17.118
BMEWS-1 / BPP Block 02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.439
BMEWS-3 / DPSP			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.000
Total			**-**	**-**	**18.000**	**-**	**-**	**14.438**	**-**	**-**	**21.803**	**-**	**-**	**36.801**	**-**	**-**	**0.000**	**-**	**-**	**104.427**

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
BMEWS-UEWR-Block-05 / Ballistic Missile Early Warning (BMEWS)	NA	Reliability & Maintainability
BMEWS-UEWR-Block-06 / Ballistic Missile Early Warning	NA	Reliability & Maintainability
BMEWS-1 / BPP Block 02	NA	Reliability & Maintainability
BMEWS-3 / DPSP	TBD	Reliability & Maintainability

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Modification Number / Title: 1 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	11.829	0.000	11.829	0.100	0.300	0.000	0.000	-	12.229
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	11.829	0.000	11.829	0.100	0.300	0.000	0.000	-	12.229
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**11.829**	**0.000**	**11.829**	**0.100**	**0.300**	**0.000**	**0.000**	**-**	**12.229**
(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:

Block 03: FY 2024 will fund ongoing program support costs for UEWR modification efforts and will initiate procurement of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, Frequency Timing Standards (FTS) and associated components. The Department of Defense (DoD)/Chief Information Officer (CIO) mandated timing transition to the Defense Information Systems Agency (DISA) Timing & Synchronization (TSSC) system. This project will replace the current GPS antennas utilized for timing and synchronization of UEWR by integrating the UEWR FTS with the recently deployed TSSC system. Due to the limited spares, demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. Funding will allow 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, testing, and deployment of the required capabilities and interfaces, associated hardware, software, firmware, etc.

For transparency budget exhibit moved from P-40A to P3A to provide lower level detail.

Milestone/Development Status

N/A

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Modification Number / Title: 1 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: NA	Modification Type: Reliability & Maintainability	Related RDT&E PEs:

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: Frequency Timing Standard												
B Kits												
Recurring												
Frequency Timing Standard:EQUIPMENT Group B (Active)	- / -	- / -	- / -	4 / 10.616	- / -	4 / 10.616	- / -	- / -	- / -	- / -	- / -	4 / 10.616
Subtotal: Recurring	- / -	- / -	- / -	- / *10.616*	- / -	- / *10.616*	- / -	- / -	- / -	- / -	- / -	- / *10.616*
Subtotal: Frequency Timing Standard	- / -	- / -	- / -	- / *10.616*	- / -	- / *10.616*	- / -	- / -	- / -	- / -	- / -	- / *10.616*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / *10.616*	- / -	- / *10.616*	- / -	- / -	- / -	- / -	- / -	- / *10.616*
Support *(All Modification Items)*												
A&AS	- / -	- / -	- / -	- / 1.213	- / -	- / 1.213	- / -	- / -	- / -	- / -	- / -	- / 1.213
Subtotal: Support	- / -	- / -	- / -	- / *1.213*	- / -	- / *1.213*	- / -	- / -	- / -	- / -	- / -	- / *1.213*
Installation												
Modification Item 1 of 1: Frequency Timing Standard	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	3 / 0.300	- / -	- / -	- / -	4 / 0.400
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	*1 / 0.100*	*3 / 0.300*	- / -	- / -	- / -	*4 / 0.400*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**11.829**	**0.000**	**11.829**	**0.100**	**0.300**	**0.000**	**0.000**	**-**	**12.229**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 1 of 1: Frequency Timing Standard

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 15

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			May 2024				
Delivery Dates			Aug 2025				

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	3 / 0.300	- / -	- / -	- / -	4 / 0.400
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	3 / 0.300	- / -	- / -	- / -	4 / 0.400

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	0	4
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	0	4

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 2 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	20.544	0.000	20.544	19.269	20.705	14.545	0.300	-	75.363
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	20.544	0.000	20.544	19.269	20.705	14.545	0.300	-	75.363
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**20.544**	**0.000**	**20.544**	**19.269**	**20.705**	**14.545**	**0.300**	**-**	**75.363**
(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, 1203909SF, P-3A Mod BMEWS - UEWR - Block 04, Ballistic Missile Early Warning, is a new start.
Block 04: FY 2024 will fund ongoing program support costs for UEWR modification efforts and will initiate procurement and deployment of Capital Equipment Replacement of unsupportable mission and support equipment, initial spares, and lifetime buys of spares to include, but not limited to, the Transitional Receiver Exciter (T-REX) and associated components. The T-REX replaces legacy and obsolete REX cabinets. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. 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, etc.

For transparency budget exhibit moved from P-40A to P3A to provide lower level detail.

Milestone/Development Status

N/A

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 2 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	
Models of Systems Affected: NA	**Modification Type:** Reliability & Maintainability	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: TREX												
B Kits												
Recurring												
TREX:EQUIPMENT Group B (Active)	- / -	- / -	- / -	4 / 18.167	- / -	4 / 18.167	3 / 15.109	5 / 16.905	3 / 11.945	- / -	- / -	15 / 62.126
Subtotal: Recurring	- / -	- / -	- / -	- / *18.167*	- / -	- / *18.167*	- / *15.109*	- / *16.905*	- / *11.945*	- / -	- / -	- / *62.126*
Subtotal: TREX	- / -	- / -	- / -	- / *18.167*	- / -	- / *18.167*	- / *15.109*	- / *16.905*	- / *11.945*	- / -	- / -	- / *62.126*
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	- / *18.167*	- / -	- / *18.167*	- / *15.109*	- / *16.905*	- / *11.945*	- / -	- / -	- / *62.126*
Support *(All Modification Items)*												
A&AS	- / -	- / -	- / -	- / 2.377	- / -	- / 2.377	- / 3.760	- / 3.500	- / 2.100	- / -	- / -	- / 11.737
Subtotal: Support	- / -	- / -	- / -	- / *2.377*	- / -	- / *2.377*	- / *3.760*	- / *3.500*	- / *2.100*	- / -	- / -	- / *11.737*
Installation												
Modification Item 1 of 1: TREX	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.400	3 / 0.300	5 / 0.500	3 / 0.300	- / -	15 / 1.500
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	*4 / 0.400*	*3 / 0.300*	*5 / 0.500*	*3 / 0.300*	- / -	*15 / 1.500*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**0.000**	**0.000**	**20.544**	**0.000**	**20.544**	**19.269**	**20.705**	**14.545**	**0.300**	**-**	**75.363**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 2 / Ballistic Missile Early Warning
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Modification Item 1 of 1: TREX

Manufacturer Information

Manufacturer Name: Georgia Technical Research Institute	Manufacturer Location: Georgia
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 15

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Feb 2024	Feb 2025	Jan 2026	Jan 2027	
Delivery Dates			May 2025	May 2026	Apr 2027	Apr 2028	

Installation Information

Method of Implementation: Contractor Facility

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.400	- / -	- / -	- / -	- / -	4 / 0.400
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	- / -	- / -	- / -	3 / 0.300
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.500	- / -	- / -	5 / 0.500
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	- / -	3 / 0.300
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.400	3 / 0.300	5 / 0.500	3 / 0.300	- / -	15 / 1.500

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				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	-	-	-	3	-	-	-	5	-	-	-	3	-	0	15
Out	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	3	-	-	-	5	-	-	-	3	-	0	15

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Items Title:** Ballistic Missile Early Warning

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
BPP Block 00 Update																				
Subarray Power	A		-	-	-	18.066	1	18.066	14.138	1	14.138	0.293	1	0.293	-	-	-	0.293	1	0.293
Subtotal: BPP Block 00 Update			**-**	**-**	**-**	**-**	**-**	***18.066***	**-**	**-**	***14.138***	**-**	**-**	***0.293***	**-**	**-**	**-**	**-**	**-**	***0.293***
BPP Block 01 Update																				
Array Group Drivers	A		-	-	-	-	-	-	-	-	-	0.600	1	0.600	-	-	-	0.600	1	0.600
Subtotal: BPP Block 01 Update			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.600***	**-**	**-**	**-**	**-**	**-**	***0.600***
Thule A8 Repair																				
J-Plant HEMP Shielding	A		-	-	-	-	-	-	-	-	-	-	-	21.577	-	-	-	-	-	21.577
Power Generation and Distro System	A		-	-	-	-	-	-	-	-	-	-	-	42.000	-	-	-	-	-	42.000
Subtotal: Thule A8 Repair			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***63.577***	**-**	**-**	**-**	**-**	**-**	***63.577***
BPP Block 03 Update																				
FTS	A		-	-	-	-	-	0.000	14.981	1	14.981	-	-	-	-	-	-	-	-	-
Subtotal: BPP Block 03 Update			**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	***14.981***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**-**	**-**	**-**	**18.066**	**-**	**-**	**29.119**	**-**	**-**	**64.470**	**-**	**-**	**-**	**-**	**-**	**64.470**

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

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Modification Items Title:** Submarine-Launched Ballistic Missile

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
PARCSB1 / PARCS Block 01			-	-	0.798	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			**-**	**-**	**0.798**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2025			FY 2026			FY 2027			FY 2028			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)
PARCSB1 / PARCS Block 01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.798
Total			**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.798**

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
PARCSB1 / PARCS Block 01	NA	Reliability & Maintainability

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Modification Number / Title: 1 / PARCS Block 02
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.500	0.606	3.995	6.466	0.000	6.466	6.330	5.797	5.919	6.018	-	35.631
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.500	0.606	3.995	6.466	0.000	6.466	6.330	5.797	5.919	6.018	-	35.631
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.500**	**0.606**	**3.995**	**6.466**	**0.000**	**6.466**	**6.330**	**5.797**	**5.919**	**6.018**	**-**	**35.631**
(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:

Perimeter Acquisition Radar Attack Characterization System (PARCS) Program Office plans for and procures replacement components for otherwise unsupportable, unobtainable, and unreliable system components. PARCS equipment is composed of custom built components that became obsolete in the 1980s. Most spare parts for this system are no longer available and have no logistics tail. Without replacements, there is a high risk of mission failure and/or unacceptable downtime for repair. To best ensure operational availability, replacement projects are performed in phases targeting the highest risk components of the subsystems.

This program was previously funded out of Air Force Appropriation 3021 Space Procurement, PEC: 1203912F, BPAC: 23SMOD.

Perimeter Acquisition Radar Attack Characterization System (PARCS) Block 02 (P-3a):

FY 2024 will fund Block 02 by continuing modifications to the PARCS system for the replacement of unsupportable and unreliable components to include, but not limited to, the PARCS Mission Data Processor, Radar Transmitter, Antenna Group, Exciter Group, Radio Frequency Signal Processor Group, Performance Monitor Group, Radar Return Generator Group, Digital Data Group, and Radar Controller Group, Power Amplifiers, and any associated initial spares. Due to the limited spares demand rates, and indefinite system lifespan, life-of-type buys may be required to support this weapon system. PARCS funding procures replacement components for unsupportable, unobtainable, and unreliable system components. PARCS equipment is composed of custom-built components that became obsolete in the 1980s. Most spare parts for this system are no longer available and have no logistics tail. Without replacements there is a high risk of mission failure and/or unacceptable downtime for repair. To best ensure operational availability, replacement projects are performed in phases targeting the highest risk components of the subsystems. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, etc.

The effort is funded in PE 1203912SF Sea Launched Ballistic Missile (SLBM) Detection and Warning System.

Milestone/Development Status

N/A

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Modification Number / Title: 1 / PARCS Block 02
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Models of Systems Affected: NA	Modification Type: Reliability & Maintainability	Related RDT&E PEs:

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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 2: COMMON: Install Kits (2)												
A Kits												
Recurring												
COMMON: Install Kits:INSTALL KITS Group A (Active)	- / -	- / -	- / 0.100	- / 0.100	- / -	- / 0.100	- / 0.100	- / 0.100	- / 0.100	- / 0.100	- / -	- / 0.600
Subtotal: Recurring	*- / -*	*- / -*	*- / 0.100*	*- / 0.100*	*- / -*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / -*	*- / 0.600*
Subtotal: COMMON: Install Kits (2)	*- / -*	*- / -*	*- / 0.100*	*- / 0.100*	*- / -*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / 0.100*	*- / -*	*- / 0.600*
Modification Item 2 of 2: PARCS: EQUIPMENT (2)												
B Kits												
Recurring												
PARCS: EQUIPMENT:EQUIPMENT Group B (Active)	- / -	- / -	1 / 2.895	1 / 3.866	- / -	1 / 3.866	1 / 3.730	1 / 3.197	1 / 3.319	1 / 3.418	- / -	6 / 20.425
Subtotal: Recurring	*- / -*	*- / -*	*- / 2.895*	*- / 3.866*	*- / -*	*- / 3.866*	*- / 3.730*	*- / 3.197*	*- / 3.319*	*- / 3.418*	*- / -*	*- / 20.425*
Subtotal: PARCS: EQUIPMENT (2)	*- / -*	*- / -*	*- / 2.895*	*- / 3.866*	*- / -*	*- / 3.866*	*- / 3.730*	*- / 3.197*	*- / 3.319*	*- / 3.418*	*- / -*	*- / 20.425*
Subtotal: Procurement, All Modification Items	*- / -*	*- / -*	*- / 2.995*	*- / 3.966*	*- / -*	*- / 3.966*	*- / 3.830*	*- / 3.297*	*- / 3.419*	*- / 3.518*	*- / -*	*- / 21.025*
Support *(All Modification Items)*												
A&AS	- / 0.500	- / 0.606	- / 1.000	- / 2.500	- / -	- / 2.500	- / 2.500	- / 2.500	- / 2.500	- / 2.500	- / -	- / 14.606
Subtotal: Support	*- / 0.500*	*- / 0.606*	*- / 1.000*	*- / 2.500*	*- / -*	*- / 2.500*	*- / 2.500*	*- / 2.500*	*- / 2.500*	*- / 2.500*	*- / -*	*- / 14.606*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**0.500**	**0.606**	**3.995**	**6.466**	**0.000**	**6.466**	**6.330**	**5.797**	**5.919**	**6.018**	**-**	**35.631**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / PARCS Block 02
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 1 of 2: COMMON: Install Kits (2)

Manufacturer Information

Manufacturer Name: N/A	Manufacturer Location: N/A
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Modification Number / Title:** 1 / PARCS Block 02
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Modification Item 2 of 2: PARCS: EQUIPMENT (2)

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*: 15

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates		Mar 2023	Mar 2024	Mar 2025	Mar 2026	Mar 2027	Mar 2028
Delivery Dates		Jun 2024	Jun 2025	Jun 2026	Jun 2027	Jun 2028	Jun 2029

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 6

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPCMOD / Space Mods	**Aggregated Items Title:** Space Situational Awareness Operations

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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		-	-	-	-	-	-	0.421	2	0.842	0.456	1	0.456	-	-	-	0.456	1	0.456
SEON	A		-	-	-	-	-	-	0.599	1	0.599	0.599	1	0.599	-	-	-	0.599	1	0.599
TAPOUT	A		-	-	-	-	-	-	1.036	8	8.284	-	-	-	-	-	-	-	-	-
SPARES-TAPOUT	A		-	-	-	-	-	-	-	-	-	0.003	16	0.054	-	-	-	0.003	16	0.054
Subtotal: Hardware-Hardware End Item Cost			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***9.725***	**-**	**-**	***1.109***	**-**	**-**	**-**	**-**	**-**	***1.109***
Support-Support End Item Cost																				
INSTALLATION-IGS	A		-	-	-	-	-	-	2.082	2	4.163	2.180	1	2.180	-	-	-	2.180	1	2.180
SHIPPING-TAPOUT	A		-	-	-	-	-	-	-	-	-	0.026	16	0.408	-	-	-	0.026	16	0.408
SITE CONSTRUCTION-TAPOUT	A		-	-	-	-	-	-	-	-	-	0.079	6	0.477	-	-	-	0.080	6	0.477
LEASING EXPENSES-TAPOUT	A		-	-	-	-	-	-	-	-	-	0.070	16	1.126	-	-	-	0.070	16	1.126
Subtotal: Support-Support End Item Cost			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.163***	**-**	**-**	***4.191***	**-**	**-**	**-**	**-**	**-**	***4.191***
Total			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.888**	**-**	**-**	**5.300**	**-**	**-**	**-**	**-**	**-**	**5.300**

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPCMOD / Space Mods	Aggregated Items Title: Weather Service

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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																				
MARK IV-B	A		-	-	-	-	-	-	1.272	1	1.272	0.306	1	0.306	-	-	-	0.306	1	0.306
Subtotal: Hardware-Hardware End Item Cost			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.272***	**-**	**-**	***0.306***	**-**	**-**	**-**	**-**	**-**	***0.306***
Support-Support End Item Cost																				
Installation MARK IV-B	A		-	-	-	-	-	-	-	-	-	0.234	2	0.468	-	-	-	0.234	2	0.468
Subtotal: Support-Support End Item Cost			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.468***	**-**	**-**	**-**	**-**	**-**	***0.468***
Total			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.272**	**-**	**-**	**0.774**	**-**	**-**	**-**	**-**	**-**	**0.774**

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 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1203182SF / **Other Related Program Elements:** 1203182SF
Line Item MDAP/MAIS Code: N/A	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.458	93.773	71.712	114.505	-	114.505	108.701	108.477	111.233	113.568	-	736.427
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.458	93.773	71.712	114.505	-	114.505	108.701	108.477	111.233	113.568	-	736.427
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.458**	**93.773**	**71.712**	**114.505**	**-**	**114.505**	**108.701**	**108.477**	**111.233**	**113.568**	**-**	**736.427**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Spacelift Range System (SLRS), also known as the Launch and Test Range System (LTRS), provides public safety and assured access to space. LTRS operates at the Eastern Range (ER) at Patrick SFB/ Cape Canaveral SFS, FL and the Western Range (WR) at Vandenberg SFB, CA. LTRS provides tracking, telemetry, communications, flight safety, and other capabilities to support launch of national security space (NSS), civil and commercial space payloads, Intercontinental and Sea Launched ballistic missile and missile defense evaluations, and aeronautical and guided weapon tests. LTRS ensures ability to meet the national launch requirement, safely support the launch cadence of ER/WR launch requirement holders and provide assured access to space for the nation. The ER and WR are designated as Department of Defense Major Range and Test Facility Bases (MRTFB). LTRS is comprised of 12 subsystems that together provide this capability to the ranges. The Range Safety, Command Destruct, and Positive Control subsystems provide the capability to destroy an errant rocket, if necessary to protect public safety. These subsystems rely on the Telemetry, Radar, and Optics subsystems to provide tracking data. The Weather and Surveillance subsystems allow range operators and customers to determine if conditions are safe for launch. The Communications, Data Handling, and Timing & Sequencing subsystems ensure critical data is expeditiously routed from remote sensors (e.g., radars, optics) to range operators and customers. Finally, the Planning and Scheduling subsystem ensures all assets are available when needed for a launch or test operation. The Space Force prioritizes procurement funds to transform LTRS to industry commercial standard technology and practices and ensure aging range equipment is modernized to meet current and projected mission requirements derived from documented Range user needs. Sustainment trends are continuously analyzed and assessed across all 12 subsystems and procurement funds are used to modernize the most critical mission equipment and procure replacement components.

1) LTRS Replenishment Spares Procurement: Provides peculiar and common support material, required re-procurement data, and interim supply support management.

2) LTRS Support Services: FFRDC mission assurance activities ensure all twelve subsystems are compatible with mission rules and do not pose a risk to safe and cost-effective satellite launches. Funds are also used for Systems Engineering and Integration (SE&I) to ensure baseline documentation and modernization activities remain synchronized with the sustainment baseline.

3) LTRS Commodities Procurement: LTRS commodities procurement will meet Space Force Commander's Range of the Future (ROTF) direction to: (1) ensure LTRS meets increasing launch capacity demand on the ER and WR; and (2) provide user support to launch and test requirement holders. The Commander's intent is that LTRS capability will not constrain the national space launch cadence. The Space Force will use various contract vehicles to procure, configure, install and integrate ROTF system architecture modifications to support the requirement for 80 launches per year and achieve vehicle performance assessment rates of up to 30 megabytes (Mb) per second. These modifications will include advanced digital data receive, transport and processing capability and modernized telemetry formats leveraging dispersed and disaggregated deployment concepts.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPRNGE / Spacelift Range System Space	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203182SF	Other Related Program Elements: 1203182SF
Line Item MDAP/MAIS Code: N/A		

4) Range Communications Facility (RCF): Relocate communications capabilities from the Eastern Range XY building to a new RCF, resolving building degradation, code non-compliance, and high risk off-loading. The Space Force will either move existing equipment or procure new COTS equipment if necessary, to meet system requirements and minimize impacts to scheduled launches.

5) Range Command Destruct Modernization (RCDM): Modernizes the Eastern Range Command Destruct Systems. The Range Command Destruct modernization will provide the capability to use a new secure Command Destruct code, the Enhanced Flight Termination System (EFTS), mandated by the NSA for cyber security on the Eastern Range. The Eastern Range Command Destruct system will replace a sustainment "worst actor" that has been the cause of an expensive launch scrub as well as several near scrubs.

6) Modernization of Eastern Range Network (MEN): Upgrades the communications subsystem on the Eastern Range from outdated Asynchronous Transfer Mode (ATM) technology to Internet Protocol (IP) version 4/6 (IPV4/IPV6). MEN resolves obsolescence issues facing the program, addresses high-priority sustainment issues, and provides improved cyber security for range operations. The contract was awarded as a small business set-aside.

7) Western Range Modernization of Network (WMN): Upgrades the communications subsystem on Western Range from Asynchronous Transfer Mode (ATM) technology to an IPv6 based/IPv4 compatible network, resolving obsolescence issues, numerous high-priority sustainment issues, and providing improved cyber security for range operations. The WMN contract was awarded as a small business set aside.

8) Digital Transformation (previously: Digital Edge Modernization (DEM)): Transforms Eastern Range (ER) and Western Range (WR) Launch and Test Range System (LTRS) sensors and systems providing data, video, and communications to conduct data-driven command and control (C2) of launch operations. The information-intensive transformation from siloed LTRS systems to an interconnected ecosystem integrating information, applications, and sensors will provide on-demand, automated and scalable data and operational services to meet continuously evolving government and industry launch and test requirements. Digital transformation will enable a commercial standard LTRS ecosystem, leveraging enterprise cloud services and modern software development strategies to deliver resilient capability at speed while flexibly integrating launch operations data and applications across the 12 LTRS subsystems. Digital Transformation will adapt LTRS to accommodate flexible, responsive, and affordable launch, recovery, and test and evaluation operations allowing scalability for accelerating launch capacity and cadence.

ROTF Projects will enable agile and resilient LTRS operations following full Autonomous Flight Safety System (AFSS) implementation on ER and WR. LTRS must support non-AFSS equipped Major Range and Test Facility Base (MRTFB) activities through 2030.

Space acquisition must respond with speed and agility to pacing and emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/ classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

Funding for this exhibit is contained in PE 1203182SF.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** 1203182SF / **Other Related Program Elements:** 1203182SF
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	Space Lift Range System Modernization		A		- / -	- / 83.315	- / 61.567	- / 106.382	- / -	- / 106.382
P-40a	Space Lift Range System Modifications				- / 5.749	- / 4.480	- / 1.745	- / 0.023	- / 0.000	- / 0.023
P-3a	1 / Range Communications Facility (RCF) (Reliability & Maintainability)		B		- / 8.709	- / 5.978	- / 8.400	- / 8.100	- / 0.000	- / 8.100
P-40	**Total Gross/Weapon System Cost**				**- / 14.458**	**- / 93.773**	**- / 71.712**	**- / 114.505**	**- / -**	**- / 114.505**

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	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	Space Lift Range System Modernization		A		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Space Lift Range System Modifications				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 11.997
P-3a	1 / Range Communications Facility (RCF) (Reliability & Maintainability)		B		- / 0.000	- / 0.000	- / -	- / -	- / -	- / 31.187
P-40	**Total Gross/Weapon System Cost**				**- / 108.701**	**- / 108.477**	**- / 111.233**	**- / 113.568**	**- / -**	**- / 736.427**

*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:

LTRS Commodities Procurement (P-5): FY 2024 funds will accelerate system modernization and integration of prime mission equipment into the LTRS baseline delivering on Range of the Future (ROTF) launch capacity and data collection requirements. Additionally, commodity procurement modernization efforts include: Eastern Range Telemetry Antenna Controller (TAC) Replacement Phase 2 (Ascension), and LTRS Range Asset/Range Item Development Integration into the Range of FY2024 delivered modernized end items.

LTRS Interim Supply Support (P-5): FY 2024 funds will continue to provide LTRS supply support to include spares, spares management support, and management support in preparation of delivering ROTF modernized systems and preparing for Digital Transformation.

LTRS Support Services (P-5): FY 2024 funds will continue FFRDC mission assurance and procurement and research and development to ensure LTRS remains technically compatible with launch mission assurance and mission safety. Funds will continue SE&I and program management supporting LTRS system engineering baseline currency throughout modernization and Digital Transformation program acquisition and research and development activities.

Digital Transformation (previously Digital Edge Modernization (DEM)) FY 2024 funds will procure Next Gen Radar Open System Architecture (ROSA) Integration (19.134) ROSA III Operational Segment Integration; 0.134 Radar Control Segment ROSA II Upgrade, and Phase 3 Modernization of WR Operations (MOWRO) including deployment of increased voice and video data capacity.

RCDM (P-40a): No FY 2024 funding requested. RCDM completed in Oct 22 and transitioned to sustainment.

WMN (P-40a): FY 2024 funds will support DISA Leased Lines for the program. WMN will complete in FY24 and transition to sustainment.

RCF (P-3a): FY 2024 funds will complete Phase 3C to include the dispositioning of remaining mission equipment, dispositioning of general equipment, and any other pre-demolition efforts within the XY building.

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 01: Space Procurement, SF / BSA 10: Space Programs	P-1 Line Item Number / Title: SPRNGE / Spacelift Range System Space	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 1203182SF	Other Related Program Elements: 1203182SF
Line Item MDAP/MAIS Code: N/A		

Additionally, FY 2024 funding will allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities include, but are not limited to, program office support, studies, technical analysis, etc.

Efforts with funding starting in FY 2025 through FY 2028 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 2025 Cost Delta: 108.701 million
(b) FY 2026 Cost Delta: 108.477 million
(c) FY 2027 Cost Delta: 111.233 million
(d) FY 2028 Cost Delta: 113.568 million
(e) FY Total Cost Delta: 693.243 million

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space	**Item Number / Title [DODIC]:** Space Lift Range System Modernization
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	83.315	61.567	106.382	-	106.382
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	83.315	61.567	106.382	-	106.382
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**83.315**	**61.567**	**106.382**	**-**	**106.382**
(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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 - Spacelift Range System Space Cost																		
Non Recurring Cost																		
Commodities Procurement	-	-	-	46.132	1	46.132	-	-	23.742	67.374	1	67.374	-	-	-	67.374	1	67.374
Subtotal: Non Recurring Cost	-	-	-	-	-	*46.132*	-	-	*23.742*	-	-	*67.374*	-	-	-	-	-	*67.374*
Subtotal: Hardware - Spacelift Range System Space Cost	**-**	**-**	**-**	**-**	**-**	***46.132***	**-**	**-**	***23.742***	**-**	**-**	***67.374***	**-**	**-**	**-**	**-**	**-**	***67.374***
Logistics - Spacelift Range System Space Cost																		
Recurring Cost																		
Interim Supply Support Material (Parts/ Supplies)	-	-	-	-	-	5.076	-	-	6.898	-	-	7.451	-	-	-	-	-	7.451
Technical Mission Analysis	-	-	-	-	-	4.756	-	-	4.342	-	-	4.473	-	-	-	-	-	4.473
Enterprise Systems Engineering and Integration	-	-	-	-	-	15.960	-	-	15.800	-	-	15.900	-	-	-	-	-	15.900
Subtotal: Recurring Cost	-	-	-	-	-	*25.792*	-	-	*27.040*	-	-	*27.824*	-	-	-	-	-	*27.824*
Subtotal: Logistics - Spacelift Range System Space Cost	**-**	**-**	**-**	**-**	**-**	***25.792***	**-**	**-**	***27.040***	**-**	**-**	***27.824***	**-**	**-**	**-**	**-**	**-**	***27.824***
Support - Spacelift Range System Space Cost																		
FFRDC	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-
Advisory and Assistance Services (A&AS)	-	-	-	-	-	6.471	-	-	6.600	-	-	6.554	-	-	-	-	-	6.554

Exhibit P-5, Cost Analysis: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space	**Item Number / Title [DODIC]:** Space Lift Range System Modernization
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Support	-	-	-	-	-	4.920	-	-	4.185	-	-	4.630	-	-	-	-	-	4.630
Subtotal: Support - Spacelift Range System Space Cost	**-**	**-**	**-**	**-**	**-**	***11.391***	**-**	**-**	***10.785***	**-**	**-**	***11.184***	**-**	**-**	**-**	**-**	**-**	***11.184***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**83.315**	**-**	**-**	**61.567**	**-**	**-**	**106.382**	**-**	**-**	**-**	**-**	**-**	**106.382**

Remarks:

- Unit quantities and costs vary widely for multiple types and configurations of equipment being procured under modernization and sustainment project cost elements each fiscal year.

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPRNGE / Spacelift Range System Space	Aggregated Modification Items Title: Space Lift Range System Modifications

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
02-WMN / Western Range Modernization of Network (WMN)			-	-	1.981	-	-	3.409	-	-	1.745	-	-	0.023	-	-	-	-	-	0.023
03-RCDM / Range Command Destruct Modernization (RCDM)			-	-	3.768	-	-	1.071	-	-	-	-	-	-	-	-	-	-	-	-
Total			**-**	**-**	**5.749**	**-**	**-**	**4.480**	**-**	**-**	**1.745**	**-**	**-**	**0.023**	**-**	**-**	**0.000**	**-**	**-**	**0.023**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2025			FY 2026			FY 2027			FY 2028			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)
02-WMN / Western Range Modernization of Network (WMN)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.158
03-RCDM / Range Command Destruct Modernization (RCDM)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.839
Total			**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**11.997**

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
02-WMN / Western Range Modernization of Network (WMN)	WMN	Capability Improvement
03-RCDM / Range Command Destruct Modernization (RCDM)	RCDM	Capability Improvement

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space	**Modification Number / Title:** 1 / Range Communications Facility (RCF)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	8.709	5.978	8.400	8.100	0.000	8.100	0.000	0.000	-	-	-	31.187
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.709	5.978	8.400	8.100	0.000	8.100	0.000	0.000	-	-	-	31.187
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.709**	**5.978**	**8.400**	**8.100**	**0.000**	**8.100**	**0.000**	**0.000**	**-**	**-**	**-**	**31.187**
(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:

FY 2024 funding for the RCF Program will be applied to Phase 3C.

Phase 3C will include the dispositioning of remaining mission equipment, dispositioning of general equipment, and any other pre-demolition efforts within the XY building. This will be contracted through RGNext and must complete within the FY.

Milestone/Development Status

Post Milestone C - Production and Development Phase

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	P-1 Line Item Number / Title: SPRNGE / Spacelift Range System Space	Modification Number / Title: 1 / Range Communications Facility (RCF)
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	
Models of Systems Affected: RCF	Modification Type: Reliability & Maintainability	Related RDT&E PEs: 1203182SF

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	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: Range Communications Facility (RCF)												
B Kits												
Recurring												
Range Communications Facility (RCF):EQUIPMENT Group B (Active)	- / 8.709	- / 5.978	- / 8.400	- / 8.100	- / -	- / 8.100	- / -	- / -	- / -	- / -	- / -	- / 31.187
Subtotal: Recurring	*- / 8.709*	*- / 5.978*	*- / 8.400*	*- / 8.100*	*- / -*	*- / 8.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 31.187*
Subtotal: Range Communications Facility (RCF)	*- / 8.709*	*- / 5.978*	*- / 8.400*	*- / 8.100*	*- / -*	*- / 8.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 31.187*
Subtotal: Procurement, All Modification Items	*- / 8.709*	*- / 5.978*	*- / 8.400*	*- / 8.100*	*- / -*	*- / 8.100*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 31.187*
Installation												
Subtotal: Installation	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Total												
Total Cost (Procurement + Support + Installation)	**8.709**	**5.978**	**8.400**	**8.100**	**0.000**	**8.100**	**0.000**	**0.000**	**-**	**-**	**-**	**31.187**

Exhibit P-3a, Individual Modification: PB 2024 Air Force		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F / 01 / 10	**P-1 Line Item Number / Title:** SPRNGE / Spacelift Range System Space	**Modification Number / Title:** 1 / Range Communications Facility (RCF)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Modification Item 1 of 1: Range Communications Facility (RCF)

Manufacturer Information

Manufacturer Name: Range Generation Next LLC	Manufacturer Location: Sterling, VA
Administrative Leadtime *(in Months)*: 0	Production Leadtime *(in Months)*: 0

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): Org/Intermediate	**Installation Quantity:** 0

Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force			Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 02: Spares / BSA 20: Spares		P-1 Line Item Number / Title: SSPARE / 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			

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	1.282	1.352	0.906	-	0.906	0.920	0.939	0.965	0.986	0.000	7.350
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	1.282	1.352	0.906	-	0.906	0.920	0.939	0.965	0.986	0.000	7.350
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**1.282**	**1.352**	**0.906**	**-**	**0.906**	**0.920**	**0.939**	**0.965**	**0.986**	**0.000**	**7.350**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Initial Spares consist of reparable components, assemblies, sub-assemblies, and consumable items required as initial stock (including readiness spares package requirements) in support of space acquisition programs. 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.

This line contains funding for the following program:
Information Systems Security Program

Justification:

Justification:
The FY24 budget supports initial spares for the following program: Information Systems Security Program.

PE 1203140SF Information Systems Security Program: FY24 funding ($0.906M) is required to supply crypto devices for space and ground nodes, used by all Services/Agencies, to meet an NSA cybersecurity mandates.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Air Force	Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 3022F: Procurement, Space Force / BA 04: Other Base Maintenance and Support Equipment / BSA 41: Support Equipment	**P-1 Line Item Number / Title:** POWCON / 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

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.000	0.000	3.100	-	3.100	3.184	3.271	3.360	3.429	-	16.344
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.000	0.000	3.100	-	3.100	3.184	3.271	3.360	3.429	-	16.344
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.000**	**0.000**	**3.100**	**-**	**3.100**	**3.184**	**3.271**	**3.360**	**3.429**	**-**	**16.344**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Power Conditioning and Continuation Interfacing Equipment (PCCIE) program provides centralized point for technical/engineering support, acquisition, fielding and sustainment of PCCIE systems. 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.

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 0207510F

Justification:

This program is a new start.

Transfers Space Force proportional funds from Air Force to provide technical/engineering support, acquisition, fielding and sustainment of PCCIE systems.

To guarantee continuation of operations in the event of power surges or failures PCCIE is the last line of defense for critical intelligence, satellite, radar, airfield and computer systems
FY 24 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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