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**Department of Defense
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



Air Force

Justification Book Volume 1 of 1

Space Procurement, Air Force

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Air Force • President's Budget Submission FY 2016 • Procurement

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Appropriation Language
Fiscal Year (FY) 2016 President's Budget Submission
Space Procurement, Air Force

For construction, procurement of spacecraft and related 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; \$2,584,061,000 to remain available for obligations until September 30, 2020.

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Department of the Air Force
 FY 2016 President's Budget
 Exhibit P-1 FY 2016 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

28 Jan 2015

Appropriation -----	FY 2014 (Base & OCO) -----	FY 2015 Base Enacted -----	FY 2015 OCO Enacted -----	FY 2015 Total Enacted -----
Aircraft Procurement, Air Force	10,608,060	12,067,703	481,019	12,548,722
Missile Procurement, Air Force	4,310,213	4,626,015	136,189	4,762,204
Space Procurement, Air Force				
Procurement of Ammunition, Air Force	884,003	659,909	219,785	879,694
Other Procurement, Air Force	19,174,630	16,779,633	3,607,526	20,387,159
Total Department of the Air Force	34,976,906	34,133,260	4,444,519	38,577,779

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Department of the Air Force
 FY 2016 President's Budget
 Exhibit P-1 FY 2016 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

28 Jan 2015

Appropriation	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Aircraft Procurement, Air Force	15,657,769	128,900	15,786,669
Missile Procurement, Air Force	2,987,045	289,142	3,276,187
Space Procurement, Air Force	2,584,061		2,584,061
Procurement of Ammunition, Air Force	1,758,843	228,874	1,987,717
Other Procurement, Air Force	18,272,438	3,859,964	22,132,402
Total Department of the Air Force	41,260,156	4,506,880	45,767,036

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Department of the Air Force
FY 2016 President's Budget
Exhibit P-1 FY 2016 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2015

Appropriation: Space Procurement, Air Force

Budget Activity -----	FY 2014 (Base & OCO) -----	FY 2015 Base Enacted -----	FY 2015 OCO Enacted -----	FY 2015 Total Enacted -----
01. Space Procurement, Air Force				
Total Space Procurement, Air Force				

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Department of the Air Force
FY 2016 President's Budget
Exhibit P-1 FY 2016 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2015

Appropriation: Space Procurement, Air Force

Budget Activity -----	FY 2016 Base -----	FY 2016 OCO -----	FY 2016 Total -----
01. Space Procurement, Air Force	2,584,061		2,584,061
Total Space Procurement, Air Force	2,584,061		2,584,061

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Department of the Air Force
 FY 2016 President's Budget
 Exhibit P-1 FY 2016 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

28 Jan 2015

Appropriation: 3021F Space Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2014 (Base & OCO)		FY 2015 Base Enacted		FY 2015 OCO Enacted		FY 2015 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Space Procurement, Air Force											

Space Programs											
1	Advanced EHF	A									U
2	Wideband Gapfiller Satellites(Space)	A									U
3	GPS III Space Segment	A									U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
4	Spaceborne Equip (COMSEC)	A									U
5	Global Positioning (Space)	A									U
6	Def Meteorological Sat Prog(Space)	A									U
7	Evolved Expendable Launch Capability										U
8	Evolved Expendable Launch Veh(Space)	A									U
9	SBIR High (Space)	A									U
			-----		-----		-----		-----		
Total Space Procurement, Air Force			-----		-----		-----		-----		
Total Space Procurement, Air Force			-----		-----		-----		-----		

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Department of the Air Force
 FY 2016 President's Budget
 Exhibit P-1 FY 2016 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

28 Jan 2015

Appropriation: 3021F Space Procurement, Air Force

Line No	Item Nomenclature	Ident Code	FY 2016 Base		FY 2016 OCO		FY 2016 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Space Procurement, Air Force									

Space Programs									
1	Advanced EHF	A		333,366				333,366	U
2	Wideband Gapfiller Satellites(Space)	A		53,476				53,476	U
3	GPS III Space Segment	A	1	(286,218)			1	(286,218)	U
	Less: Advance Procurement (PY)			(-87,000)				(-87,000)	U
				-----				-----	
				199,218				199,218	
4	Spaceborne Equip (COMSEC)	A		18,362				18,362	U
5	Global Positioning (Space)	A		66,135				66,135	U
6	Def Meteorological Sat Prog(Space)	A		89,351				89,351	U
7	Evolved Expendable Launch Capability			571,276				571,276	U
8	Evolved Expendable Launch Veh(Space)	A	5	800,201			5	800,201	U
9	SBIR High (Space)	A		452,676				452,676	U
				-----				-----	
	Total Space Procurement, Air Force			2,584,061				2,584,061	
				-----				-----	
	Total Space Procurement, Air Force			2,584,061				2,584,061	

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Air Force • President's Budget Submission FY 2016 • Procurement

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

Appropriation 3021F: Space Procurement, Air Force

Line #	BA	BSA	Line Item Number	Line Item Title	Page
1	01	01	ADV555	Advanced EHF.....	Volume 1 - 1
2	01	01	GAP000	Wideband Gapfiller Satellites(Space).....	Volume 1 - 13
3	01	01	GPSIII	GPS III Space Segment.....	Volume 1 - 21
3	01	01	GPSIII	GPS III Space Segment, Advance Procurement.....	Volume 1 - 35
4	01	01	MC0MSE	Spaceborne Equipment (COMSEC).....	Volume 1 - 39
5	01	01	MGPS00	Global Positioning (Space).....	Volume 1 - 43
6	01	01	MS0554	Def Meteorological Sat Prog(Space).....	Volume 1 - 49
7	01	01	MSEELC	EVOLVED EXPENDABLE LAUNCH CAPABILITY.....	Volume 1 - 53
8	01	01	MSEELV	Evolved Expendable Launch Veh(Space).....	Volume 1 - 59
9	01	01	MSSBIR	SBIR High (Space).....	Volume 1 - 71

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Air Force • President's Budget Submission FY 2016 • Procurement

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Advanced EHF	ADV555	1	01	01.....	Volume 1 - 1
Def Meteorological Sat Prog(Space)	MS0554	6	01	01.....	Volume 1 - 49
EVOLVED EXPENDABLE LAUNCH CAPABILITY	MSEELC	7	01	01.....	Volume 1 - 53
Evolved Expendable Launch Veh(Space)	MSEELV	8	01	01.....	Volume 1 - 59
GPS III Space Segment	GPSIII	3	01	01.....	Volume 1 - 21
GPS III Space Segment, Advance Procurement	GPSIII	3	01	01.....	Volume 1 - 35
Global Positioning (Space)	MGPS00	5	01	01.....	Volume 1 - 43
SBIR High (Space)	MSSBIR	9	01	01.....	Volume 1 - 71
Spaceborne Equipment (COMSEC)	MCOMSE	4	01	01.....	Volume 1 - 39
Wideband Gapfiller Satellites(Space)	GAP000	2	01	01.....	Volume 1 - 13

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ACRONYMS

GENERAL ACRONYMS

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

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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
GPS	- Global Positioning System
GSE	- Ground Support Equipment
IOC	- Initial Operating Capability
IPE	- Increased Performance Engine
JPALS	- Joint Precision Approach and Landing System
LANTIRN	- Low Altitude Navigation and Targeting Infra Red System for Night
MAIS	- Materiel Acquisition Integrated System
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
MSIP	- Multi-Stage Improvement Program
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OPF	- Operational Flight Program
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PGSE	- Peculiar Ground Support Equipment
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	- Required Asset Availability
RDT&E	- Research, Development, Test and Evaluation

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RWR	- Radar Warning Receiver
ROM	- Rough Order of Magnitude
SAM	- Surface-to-Air Missile
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
WMP	- War Mobilization Plan
WRM	- War Reserve Material
WST	- Weapon System Trainer
UAV	- Unmanned Aerial Vehicle
UHF	- Ultra High Frequency
USA	- United States of America
VHSIC	- Very High Speed Integrated Circuit

BASE / ORGANIZATIONAL ACRONYMS

11 WING	- 11th Support Wing
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
AFNEWS	- Air Force Information & News Service Center
AFOSI	- Air Force Office of Special Investigation

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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

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USSTRATCOM - United States Strategic Command
WPAFB - Wright-Patterson AFB, OH

CONTRACT METHOD / TYPE ACRONYMS

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

CONTRACTED BY ACRONYMS

11 WING - 11th Support Wing, Washington, DC
ACC - Air Combat Command, Langley AFB, VA
AEDC - Arnold Engineering Development Center, Arnold AFB, TN
AAC - Air Armament Center, Eglin AFB, FL
AEDC - Arnold Engineering Development Center, Arnold AFB, TN

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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 AFB, FL
ESC	- Electronic Systems Center, Hanscom AFB, MA
HSC	- Human Services Center, Brook AFB, TX
OC-ALC	- Oklahoma City Air Logistics Center, Tinker AFB, OK
OO-ALC	- Ogden Air Logistics Center, Hill AFB, UT
SMC	- Space & Missile Systems Center, Los Angeles AFB, CA
US STRATCOM	- US Strategic Command, Offutt AFB, NE
WACC	- Washington Area Contracting Center, Washington DC
WR	- Western Range, Vandenberg AFB, CA
WR-ALC	- Warner-Robins Air Logistics Center, Robins AFB, GA
AFSPC	- Air Force Space Command, Peterson AFB, CO
HQ ANG	- Headquarters, Air National Guard, Washington, DC
USAFE	- United States Air Force Europe, Ramstein AB, GE
USAFA	- United States Air Force Academy, Colorado Springs, CO
SSG	- Standard Systems Group, Maxwell AFB-Gunter Annex, AL

IDENTIFICATION CODES

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

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: Space Programs

P-1 Line Item Number / Title:
ADV555 / Advanced EHF

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0605431F

Line Item MDAP/MAIS Code: 261 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	333.366	-	333.366	650.718	57.300	29.527	31.427	16.000	1,118.338
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	333.366	-	333.366	650.718	57.300	29.527	31.427	16.000	1,118.338
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	333.366	-	333.366	650.718	57.300	29.527	31.427	16.000	1,118.338

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

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

Description:

As of the FY16 PB submission, space programs' satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF0, in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 procurement funding is \$5,705.673M.

Develop and acquire Advanced Extremely High Frequency (AEHF) Military Satellite Communications (MILSATCOM) satellites, mission control segment and cryptography for survivable, anti-jam, worldwide, secure communications for the strategic and tactical warfighter. AEHF satellites will replenish the existing EHF system (Milstar) providing much higher capacity and data rate (5x increase over Milstar II) capabilities. AEHF is a cooperative program that includes International Partners (Canada, the United Kingdom, and the Kingdom of the Netherlands). The AEHF procurement program element funds the Command and Control System - Consolidated (CCS-C) mission unique software and databases for AEHF 4-6 satellites. CCS-C provides launch and early orbit support and on-orbit anomaly resolution.

AEHF Space Vehicle-3 (SV-3) and SV-4 are derivatives of the first two AEHF satellites which were delivered on the AEHF System Development and Demonstration (SDD) contract (RDT&E funded). SV-3 was successfully launched on 18 Sep 2013. SV-4 has a projected launch availability of 3QFY17.

SVs 5 and 6 are being procured under the Department of Defense's Efficient Space Procurement (ESP) approach which enables stable production and strategic sub-tier management through the block buy of space vehicles employing fixed-price contracting. The AEHF block buy of two satellites enables savings by reducing the effect of obsolescence and production breaks, allowing for economic buying of components, and optimizing production resources. Additionally, ESP enables cost efficiencies with the prime and subcontractor team as well as predictability for the space industrial base.

The Resilient Basis for SATCOM (RBS) in Joint Operations study directed an Analysis of Alternatives (AoA) to investigate how best to provision for protected MILSATCOM capabilities beyond SV-6. The Protected Satellite Communications Services (PSCS) AoA has begun and is expected to inform the FY17 budget formulation. The validated 2012 Functional Availability Report (FAR) requires AEHF replenishment satellites beginning in 2024 and Advance Procurement for the AEHF Follow-on was funded in the FY14 President Budget's beginning FY2016. However, current functional availability forecast indicates replenishment for a four satellite AEHF constellation is not required until 2027. Therefore, the AEHF Follow-on funds have been removed but may be restored should the PSCS AoA propose additional AEHF satellites.

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

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force	Date: February 2015
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Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs	P-1 Line Item Number / Title: ADV555 / Advanced EHF
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ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements: 0605431F
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Line Item MDAP/MAIS Code: 261	Item MDAP/MAIS Code(s):
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Funding for this exhibit is contained in PE 0303604F. This program has associated Research Development Test and Evaluation funding in PE 0603430F (FY13 and prior) and PE 0605431F (FY14 and beyond).

Total AEHF SV3 SV4 3020/3021 funds are \$3,043.336M.
Total AEHF SV5 SV6 3020/3021 funds are \$2,662.337M.



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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: Space Programs

P-1 Line Item Number / Title:
ADV555 / Advanced EHF

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0605431F

Line Item MDAP/MAIS Code: 261 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
AEHF SV3 SV4	P-5		- / 0.000	- / -	- / -	- / 93.140	- / -	- / 93.140
AEHF SV5 SV6	P-5		- / 0.000	- / -	- / -	- / 240.226	- / -	- / 240.226
Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 333.366	- / -	- / 333.366

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
AEHF SV3 SV4	P-5		- / 20.679	- / -	- / -	- / -	- / -	- / 113.819
AEHF SV5 SV6	P-5		- / 630.039	- / 57.300	- / 29.527	- / 31.427	- / 16.000	- / 1,004.519
Total Gross/Weapon System Cost			- / 650.718	- / 57.300	- / 29.527	- / 31.427	- / 16.000	- / 1,118.338

*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 add due to rounding.

Justification:

In FY16 AEHF will continue funding efforts such as the SV 5-6 production block buy, continuation of technical support to include obsolescence/Diminishing Manufacturing Sources (DMS) studies, SV-4 launch support option, systems engineering and integration (SE&I), AEHF Calibration Facility/Interim Command and Control (ACF/IC2) operations support, and continuation of program office and related support. Also, funds the Command and Control System - Consolidated (CCS-C) mission unique software and databases for AEHF 4-6 satellites. Funding for these efforts is in PE 0303604F.

On 31 Oct 2013, a Fixed-Price Incentive (Firm Target) contract for the AEHF SV 5/6 Production and Launch Operations was definitized, with a period of performance from fiscal years 2012 through 2021. The maximum total program funding liability is \$2.232 billion (includes \$227M in FY11 advanced procurement funds).

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: ADV555 / Advanced EHF	Item Number / Title [DODIC]: - / AEHF SV3 SV4
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	93.140	-	93.140	20.679	-	-	-	-	113.819
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	0.000	-	-	93.140	-	93.140	20.679	-	-	-	-	113.819
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	93.140	-	93.140	20.679	-	-	-	-	113.819

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 - AEHF SV3 SV4 Cost																		
Recurring Cost																		
Plus Advance Procurement CY AEHF SV 3-4	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement PY AEHF SV 3-4	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - AEHF SV3 SV4 Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Vehicle - AEHF SV3 SV4 Cost																		
Recurring Cost																		
AEHF Space Vehicle (SV) 3	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF SV 4	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - AEHF SV3 SV4 Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Checkout and Launch - AEHF SV3 SV4 Cost																		
AEHF SV 3 launch support services	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integration of AEHF SV 3 with launch vehicle	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** ADV555 / Advanced EHF **Item Number / Title [DODIC]:** - / AEHF SV3 SV4

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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)
AEHF SV 3 propellant	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF Spectrum Management Support	-	-	0.000	-	-	-	-	-	-	-	-	0.176	-	-	-	-	-	0.176
AEHF SV 4 launch support services/launch readiness	-	-	0.000	-	-	-	-	-	-	-	-	71.900	-	-	-	-	-	71.900
AEHF SV 4 propellant	-	-	0.000	-	-	-	-	-	-	-	-	3.705	-	-	-	-	-	3.705
AEHF SV 3-4 Satellite Transportation for Launch	-	-	0.000	-	-	-	-	-	-	-	-	1.394	-	-	-	-	-	1.394
Command & Control System - Consolidated (CCS-C) Launch Support AEHF SV 4	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Checkout and Launch - AEHF SV3 SV4 Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	77.175	-	-	-	-	-	77.175
Support - AEHF SV3 SV4 Cost																		
AEHF SV 3-4 Technical Support (FFRDC) to include obsolescence/ DMS studies and analyses (PMA)	-	-	0.000	-	-	-	-	-	-	-	-	7.563	-	-	-	-	-	7.563
AEHF SV 3-4 Program Office Support (PMA)	-	-	0.000	-	-	-	-	-	-	-	-	6.100	-	-	-	-	-	6.100
AEHF SV 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	0.000	-	-	-	-	-	-	-	-	2.302	-	-	-	-	-	2.302
GFP - ACF/IC2 Interim Contractor Support (All Labor)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - AEHF SV3 SV4 Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	15.965	-	-	-	-	-	15.965
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	93.140	-	-	-	-	-	93.140

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Hardware - AEHF SV3 SV4 Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2016 Air Force													Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity:						P-1 Line Item Number / Title:						Item Number / Title [DODIC]:						
3021F / 01 / 1						ADV555 / Advanced EHF						- / AEHF SV3 SV4						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Plus Advance Procurement CY AEHF SV 3-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement PY AEHF SV 3-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - AEHF SV3 SV4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Vehicle - AEHF SV3 SV4 Cost																		
Recurring Cost																		
AEHF Space Vehicle (SV) 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF SV 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - AEHF SV3 SV4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Checkout and Launch - AEHF SV3 SV4 Cost																		
AEHF SV 3 launch support services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integration of AEHF SV 3 with launch vehicle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF SV 3 propellant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF Spectrum Management Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.176
AEHF SV 4 launch support services/launch readiness	-	-	9.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80.900
AEHF SV 4 propellant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.705
AEHF SV 3-4 Satellite Transportation for Launch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.394
Command & Control System - Consolidated (CCS-C) Launch Support AEHF SV 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Checkout and Launch - AEHF SV3 SV4 Cost</i>	-	-	9.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86.175
Support - AEHF SV3 SV4 Cost																		
AEHF SV 3-4 Technical Support (FFRDC) to include obsolescence/	-	-	7.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.013

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: ADV555 / Advanced EHF	Item Number / Title [DODIC]: - / AEHF SV3 SV4
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
DMS studies and analyses (PMA)																		
AEHF SV 3-4 Program Office Support (PMA)	-	-	2.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.850
AEHF SV 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	1.479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.781
GFP - ACF/IC2 Interim Contractor Support (All Labor)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - AEHF SV3 SV4 Cost</i>	-	-	11.679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.644
Gross/Weapon System Cost	-	-	20.679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113.819

Remarks:
PMA: Program Management Administration

Total AEHF SV3 SV4 funds are \$3,043.336M.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: ADV555 / Advanced EHF	Item Number / Title [DODIC]: - / AEHF SV5 SV6
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	240.226	-	240.226	630.039	57.300	29.527	31.427	16.000	1,004.519
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	0.000	-	-	240.226	-	240.226	630.039	57.300	29.527	31.427	16.000	1,004.519
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	240.226	-	240.226	630.039	57.300	29.527	31.427	16.000	1,004.519

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 - SV5 SV6 Cost																		
Recurring Cost																		
AEHF SV 5-6 Block Buy	-	-	0.000	-	-	-	-	-	-	-	-	186.859	-	-	-	-	-	186.859
FY14 Incremental Funding	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY15 Incremental Funding	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY16 Incremental Funding	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY17 Incremental Funding	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plus Advance Procurement CY AEHF SV 5-6	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement PY AEHF SV 5-6	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.000	-	-	-	-	-	-	-	-	186.859	-	-	-	-	-	186.859
Subtotal: Space Vehicle - SV5 SV6 Cost	-	-	0.000	-	-	-	-	-	-	-	-	186.859	-	-	-	-	-	186.859
Checkout and Launch - SV5 SV6 Cost																		
AEHF SV 5-6 Propellant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEHF Spectrum Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: ADV555 / Advanced EHF	Item Number / Title [DODIC]: - / AEHF SV5 SV6
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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)
AEHF SV 5-6 launch support services/launch readiness	-	-	-	-	-	-	-	-	-	-	-	1.036	-	-	-	-	-	1.036
Command & Control System-Consolidated (CCS-C) Launch Support AEHF 5-6	-	-	-	-	-	-	-	-	-	-	-	1.890	-	-	-	-	-	1.890
AEHF SV 5-6 Satellite Transportation for Launch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Checkout and Launch - SV5 SV6 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	2.926	-	-	-	-	-	2.926
<i>Support - SV5 SV6 Cost</i>																		
AEHF SV 5-6 Technical Support (FFRDC) to include obsolescence/ DMS studies and analyses (PMA)	-	-	-	-	-	-	-	-	-	-	-	12.031	-	-	-	-	-	12.031
AEHF SV 5-6 Program Office Support (PMA)	-	-	-	-	-	-	-	-	-	-	-	19.500	-	-	-	-	-	19.500
AEHF SV 5-6 Enterprise Systems Engineering & Integration (SE&I)	-	-	-	-	-	-	-	-	-	-	-	9.934	-	-	-	-	-	9.934
GFP - ACF/IC2 Interim Contractor Support (All Labor)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ACF/IC2 Test Asset Support	-	-	-	-	-	-	-	-	-	-	-	8.976	-	-	-	-	-	8.976
<i>Subtotal: Support - SV5 SV6 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	50.441	-	-	-	-	-	50.441
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	240.226	-	-	-	-	-	240.226

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
<i>Space Vehicle - SV5 SV6 Cost</i>																		
<i>Recurring Cost</i>																		
AEHF SV 5-6 Block Buy	-	-	558.398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745.257
FY14 Incremental Funding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2016 Air Force													Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: ADV555 / Advanced EHF						Item Number / Title [DODIC]: - / AEHF SV5 SV6						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
FY15 Incremental Funding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY16 Incremental Funding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY17 Incremental Funding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plus Advance Procurement CY AEHF SV 5-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement PY AEHF SV 5-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	558.398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745.257
<i>Subtotal: Space Vehicle - SV5 SV6 Cost</i>	-	-	558.398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745.257
Checkout and Launch - SV5 SV6 Cost																		
AEHF SV 5-6 Propellant	-	-	3.854	-	-	4.008	-	-	-	-	-	-	-	-	-	-	-	7.862
AEHF Spectrum Management	-	-	0.176	-	-	0.176	-	-	0.176	-	-	0.176	-	-	-	-	-	0.704
AEHF SV 5-6 launch support services/launch readiness	-	-	2.459	-	-	2.524	-	-	0.748	-	-	5.239	-	-	4.550	-	-	16.556
Command & Control System-Consolidated (CCS-C) Launch Support AEHF 5-6	-	-	0.980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.870
AEHF SV 5-6 Satellite Transportation for Launch	-	-	1.533	-	-	1.685	-	-	-	-	-	-	-	-	-	-	-	3.218
<i>Subtotal: Checkout and Launch - SV5 SV6 Cost</i>	-	-	9.002	-	-	8.393	-	-	0.924	-	-	5.415	-	-	4.550	-	-	31.210
Support - SV5 SV6 Cost																		
AEHF SV 5-6 Technical Support (FFRDC) to include obsolescence/ DMS studies and analyses (PMA)	-	-	14.761	-	-	17.911	-	-	9.883	-	-	8.334	-	-	5.750	-	-	68.670
AEHF SV 5-6 Program Office Support (PMA)	-	-	28.069	-	-	8.684	-	-	4.138	-	-	4.576	-	-	4.700	-	-	69.667
AEHF SV 5-6 Enterprise Systems Engineering & Integration (SE&I)	-	-	10.558	-	-	12.773	-	-	4.757	-	-	3.000	-	-	1.000	-	-	42.022
GFP - ACF/IC2 Interim Contractor Support (All Labor)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: ADV555 / Advanced EHF	Item Number / Title [DODIC]: - / AEHF SV5 SV6
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
ACF/IC2 Test Asset Support	-	-	9.251	-	-	9.539	-	-	9.825	-	-	10.102	-	-	-	-	-	47.693
<i>Subtotal: Support - SV5 SV6 Cost</i>	-	-	62.639	-	-	48.907	-	-	28.603	-	-	26.012	-	-	11.450	-	-	228.052
Gross/Weapon System Cost	-	-	630.039	-	-	57.300	-	-	29.527	-	-	31.427	-	-	16.000	-	-	1,004.519

Remarks:
PMA: Program Management Administration
AEHF SV 5-6 Block Buy funding includes Engineering Change Orders

Total AEHF SV5 SV6 funds are \$2,662.337M.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: 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:** **Other Related Program Elements:** 0605433F

Line Item MDAP/MAIS Code: 326 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403

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

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

Description:

Funding for this exhibit is contained in PE 0303600F. This program has associated Research Development Test and Evaluation funding in PE 0605433F.

As of the FY16 PB submission, space programs' satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 procurement funding is \$3,203.649M.

The Wideband Global SATCOM (WGS) System, previously known as the Wideband Gapfiller Satellite 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.

WGS Block I consists of satellites 1-3. These satellites were successfully launched on 10 October 2007, 3 April 2009, and 5 December 2009, respectively.

WGS Block II consists of satellites 4-6. Block II satellites are designed with slight modifications to better support the Airborne Intelligence, Surveillance and Reconnaissance mission. Satellite 4 was successfully launched on 19 January 2012. Satellite 5 was successfully launched on 24 May 2013.

A United States-Australia WGS partnership was codified in a Memorandum of Understanding (MOU) dated 14 November 2007. Australia provides funds needed to buy Space Vehicle-6 (SV-6) in exchange for access to constellation-wide (SVs 1-6) resources. Satellite 6 was successfully launched on 7 Aug 2013. SV-6 is not included in the Procurement Quantities in these documents.

WGS Block II Follow-On (B2FO) consists of satellites 7 and beyond. The WGS procurement program element funds the Command and Control System - Consolidated (CCS-C) mission unique software and databases for the WGS B2FO satellites. CCS-C provides launch and early orbit support and on-orbit anomaly resolution.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force	Date: February 2015
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Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs	P-1 Line Item Number / Title: GAP000 / Wideband Gapfiller Satellites(Space)
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ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements: 0605433F
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Line Item MDAP/MAIS Code: 326	Item MDAP/MAIS Code(s):
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A multilateral partnership between the United States, Canada, Denmark, Luxembourg, the Netherlands, and New Zealand was codified in an MOU in January 2012. The United States contributions include existing and programmed infrastructure, to include the acquisition, launch, operations, and sustainment costs of WGS 1-8, and the launch, operations, and sustainment of SV-9. Other Partners' contributions fund SV-9 acquisition and support activities. Each Partner provides funds needed to buy SV-9 in exchange for access to constellation-wide (SVs 1-9) resources commensurate with its level of contribution. SV-9 is not included in the Procurement Quantities in these documents.

FY12 \$335M Congressional add procured WGS SV-10.

Satellites 7 through 10 are projected to launch in FY15, FY17, FY17 and FY18, respectively.

In an FY14 effort to study SATCOM capabilities to support Remotely Piloted Aircraft (RPA) requirements, the WGS program invested \$8M in a Commercial Satellite pathfinder. Additionally, the pathfinder is a means to demonstrate affordable investment alternatives to annual COMSAT leasing.

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

Total WGS SV1 SV5 3020 funds are \$1,619.426M. There are no WGS SV1 SV5 3021 funds.

Total WGS B2FO 3020/3021 funds are \$1,584.223M.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: 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:** **Other Related Program Elements:** 0605433F

Line Item MDAP/MAIS Code: 326 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
WGS B2FO	P-5		- / 0.000	- / -	- / -	- / 53.476	- / -	- / 53.476
Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 53.476	- / -	- / 53.476

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
WGS B2FO	P-5		- / 65.397	- / 48.310	- / 11.220	- / -	- / -	- / 178.403
Total Gross/Weapon System Cost			- / 65.397	- / 48.310	- / 11.220	- / -	- / -	- / 178.403

*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 add due to rounding.

Justification:
 FY16 funding includes: Continue support for B2FO satellite production, including Federally Funded Research and Development Center (FFRDC) technical analysis, mission assurance, test support (to include Camp Parks), technical support to include obsolescence/Diminishing Manufacturing Sources (DMS) studies, program office and other related support activities. Continue to study/explore SATCOM capabilities to support enduring Remotely Piloted Aircraft (RPA) bandwidth requirements. Also funds the Command and Control System - Consolidated (CCS-C) mission unique software and databases for the WGS B2FO satellites.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GAP000 / Wideband Gapfiller Satellites(Space)	Item Number / Title [DODIC]: - / WGS B2FO
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	53.476	-	53.476	65.397	48.310	11.220	-	-	178.403

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway - WGS B2FO Cost																		
Non Recurring Cost																		
Factory Restart	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 7 RF Bypass Mod	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 7 Redundant Ports	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 10 Test Battery Refurbishment	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS B2FO Enhanced Digital Channelizer Implementation	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - WGS B2FO Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - WGS B2FO Cost																		
Recurring Cost																		
Plus Advance Procurement (Current Year)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement (Prior Year)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GAP000 / Wideband Gapfiller Satellites(Space)	Item Number / Title [DODIC]: - / WGS B2FO
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware - WGS B2FO Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Vehicle - WGS B2FO Cost																		
Recurring Cost																		
WGS SV 7	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 8	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 10 (Congressional add)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - WGS B2FO Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Checkout and Launch - WGS B2FO Cost																		
WGS B2FO Checkout & Launch/Launch Readiness	-	-	0.000	-	-	-	-	-	-	-	-	39.336	-	-	-	-	-	39.336
WGS B2FO Storage, Reactivation and Transport	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Command & Control System - Consolidated (CCS-C) WGS B2FO support	-	-	0.000	-	-	-	-	-	-	-	-	2.083	-	-	-	-	-	2.083
<i>Subtotal: Checkout and Launch - WGS B2FO Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	41.419	-	-	-	-	-	41.419
Support - WGS B2FO Cost																		
WGS B2FO Test Support	-	-	0.000	-	-	-	-	-	-	-	-	0.242	-	-	-	-	-	0.242
WGS B2FO Technical Analysis Support	-	-	0.000	-	-	-	-	-	-	-	-	1.042	-	-	-	-	-	1.042
Study SATCOM capabilities to support RPA requirements	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS B2FO Program Management Administration	-	-	0.000	-	-	-	-	-	-	-	-	9.734	-	-	-	-	-	9.734
WGS B2FO A&AS	-	-	0.000	-	-	-	-	-	-	-	-	1.039	-	-	-	-	-	1.039
<i>Subtotal: Support - WGS B2FO Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	12.057	-	-	-	-	-	12.057
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	53.476	-	-	-	-	-	53.476

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Exhibit P-5, Cost Analysis: PB 2016 Air Force														Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1							P-1 Line Item Number / Title: GAP000 / Wideband Gapfiller Satellites(Space)							Item Number / Title [DODIC]: - / WGS B2FO				
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Flyaway - WGS B2FO Cost																		
Non Recurring Cost																		
Factory Restart	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 7 RF Bypass Mod	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 7 Redundant Ports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 10 Test Battery Refurbishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS B2FO Enhanced Digital Channelizer Implementation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - WGS B2FO Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - WGS B2FO Cost																		
Recurring Cost																		
Plus Advance Procurement (Current Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Advance Procurement (Prior Year)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - WGS B2FO Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Vehicle - WGS B2FO Cost																		
Recurring Cost																		
WGS SV 7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS SV 10 (Congressional add)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - WGS B2FO Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Checkout and Launch - WGS B2FO Cost																		
WGS B2FO Checkout & Launch/Launch Readiness	-	-	27.524	-	-	13.976	-	-	3.512	-	-	-	-	-	-	-	-	84.348

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GAP000 / Wideband Gapfiller Satellites(Space)	Item Number / Title [DODIC]: - / WGS B2FO
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
WGS B2FO Storage, Reactivation and Transport	-	-	25.000	-	-	25.370	-	-	-	-	-	-	-	-	-	-	-	50.370
Command & Control System - Consolidated (CCS-C) WGS B2FO support	-	-	2.083	-	-	0.208	-	-	-	-	-	-	-	-	-	-	-	4.374
<i>Subtotal: Checkout and Launch - WGS B2FO Cost</i>	-	-	54.607	-	-	39.554	-	-	3.512	-	-	-	-	-	-	-	-	139.092
Support - WGS B2FO Cost																		
WGS B2FO Test Support	-	-	0.250	-	-	0.104	-	-	0.104	-	-	-	-	-	-	-	-	0.700
WGS B2FO Technical Analysis Support	-	-	1.078	-	-	0.833	-	-	0.729	-	-	-	-	-	-	-	-	3.682
Study SATCOM capabilities to support RPA requirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WGS B2FO Program Management Administration	-	-	9.147	-	-	7.611	-	-	6.667	-	-	-	-	-	-	-	-	33.159
WGS B2FO A&AS	-	-	0.315	-	-	0.208	-	-	0.208	-	-	-	-	-	-	-	-	1.770
<i>Subtotal: Support - WGS B2FO Cost</i>	-	-	10.790	-	-	8.756	-	-	7.708	-	-	-	-	-	-	-	-	39.311
Gross/Weapon System Cost	-	-	65.397	-	-	48.310	-	-	11.220	-	-	-	-	-	-	-	-	178.403

Remarks:
Total WGS B2FO 3020/3021 funds are \$1,584.223M.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: Space Programs

P-1 Line Item Number / Title:
GPSIII / GPS III Space Segment

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

Line Item MDAP/MAIS Code: 292 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	1	-	1	1	3	3	3	-	11
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	286.218	-	286.218	216.235	685.998	904.039	900.142	4,570.517	7,563.149
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	87.000	-	87.000	-	41.462	122.962	125.162	645.617	1,022.203
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	199.218	-	199.218	216.235	644.536	781.077	774.980	3,924.900	6,540.946
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	87.000 ⁽¹⁾	-	-	-	41.462	122.962	125.162	127.417	518.200	1,022.203
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	87.000	199.218	-	199.218	257.697	767.498	906.239	902.397	4,443.100	7,563.149

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	286.218	-	286.218	216.235	228.666	301.346	300.047	-	687.559

Description:

As of the FY16 PB submission, space programs satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 advanced procurement funding is \$816.487M

GPS is a satellite-based radio navigation system that serves military and civil users worldwide. GPS users process satellite signals to determine accurate position, velocity and time. GPS must comply with 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 Global Positioning System (GPS) 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. The system is composed of three segments: user equipment (funded under PE 0305164F), space, and a control network (funded under PE 0603423F and 0305165F). RDT&E,AF funding for GPS III, including development and acquisition of Space Vehicles (SV) 01-02, is in this PE 0305265F, GPS III Space Segment. The satellites broadcast high-accuracy data using precisely synchronized signals which are received and processed by user equipment installed in military platforms. This 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.

GPS III is the next generation SV to join the GPS constellation. GPS III SVs will deliver significant enhancements, including a new civil (L1C) Galileo-compatible signal and enhanced anti-jam power.

In an effort to implement Better Buying Power 3.0 to control production costs the Air Force intends to create a competitive environment. Options for the GPS III competition continue to be explored by USD(AT&L). The Air Force's notional plan is for a two-phased competition process. Phase one is a Production Readiness competition for up to three firm-fixed price contracts to mature competitors' production designs for a competition in Phase two. Phase two will be a full and open competition for up to 22 GPS III Production SVs with an expected award in FY17/18.

The Air Force GPS directorate received USD(AT&L) approval to purchase GPS III SV09-10 at the December 2014 Defense Acquisition Board in order to sustain the constellation while competitive options are pursued. The GPS III SV09-10 purchase will be on the current Lockheed Martin contract as technical equivalents of SV01-08.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs		P-1 Line Item Number / Title: GPSIII / GPS III Space Segment
ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements:
Line Item MDAP/MAIS Code: 292	Item MDAP/MAIS Code(s):	
Total GPS III Space Segment 3020/3021 funds are \$4881M.		
Funding for this exhibit is contained in PE 0305265F.		

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs

P-1 Line Item Number / Title:
 GPSIII / GPS III Space Segment

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

Line Item MDAP/MAIS Code: 292 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
GPS III Space Segment	P-5, P-5a, P-21		- / 0.000	- / -	- / -	1 / 286.218	- / -	1 / 286.218
Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	1 / 286.218	- / -	1 / 286.218

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
GPS III Space Segment	P-5, P-5a, P-21		1 / 216.235	3 / 685.998	3 / 904.039	3 / 900.142	- / 4,570.517	11 / 7,563.149
Total Gross/Weapon System Cost			1 / 216.235	3 / 685.998	3 / 904.039	3 / 900.142	- / 4,570.517	11 / 7,563.149

*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 add due to rounding.

Justification:
 FY16 funding fully procures SV10 and associated support. It also procures production support associated with SVs purchased in prior years.
 FY17 funding fully procures SV11 and associated support. It also procures production support associated with SVs purchased in prior years.
 Refer to P5A in lieu of Item Schedule for unit cost based on actual contract award or forecast contract cost.

Footnotes:
 (1) \$87.0M FY15 Advanced Procurement was appropriated in MPAF MGPS00 GPS III. Due to transition to SPAF in FY16, FY15 Advanced Procurement will be reported with SPAF to preserve Weapon System Costs.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **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) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	1	-	1	1	3	3	3	-	11
Gross/Weapon System Cost (\$ in Millions)	0.000	-	-	286.218	-	286.218	216.235	685.998	904.039	900.142	4,570.517	7,563.149
Less PY Advance Procurement (\$ in Millions)	-	-	-	87.000	-	87.000	-	41.462	122.962	125.162	645.617	1,022.203
Net Procurement (P1) (\$ in Millions)	0.000	-	-	199.218	-	199.218	216.235	644.536	781.077	774.980	3,924.900	6,540.946
Plus CY Advance Procurement (\$ in Millions)	-	-	87.000	-	-	-	41.462	122.962	125.162	127.417	518.200	1,022.203
Total Obligation Authority (\$ in Millions)	0.000	-	87.000	199.218	-	199.218	257.697	767.498	906.239	902.397	4,443.100	7,563.149

(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)	-	-	-	286.218	-	286.218	216.235	228.666	301.346	300.047	-	687.559

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 - GPS III Cost																		
Recurring Cost																		
GPS III SV 11+ SAR	-	-	-	-	-	-	-	-	-	-	-	3.308	-	-	-	-	-	3.308
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	3.308	-	-	-	-	-	3.308
<i>Subtotal: Hardware - GPS III Cost</i>	-	-	-	-	-	-	-	-	-	-	-	3.308	-	-	-	-	-	3.308
Space Vehicle - SpaceVehicle End Item Cost																		
Recurring Cost																		
GPS III SV 03-10 ^(†)	-	-	0.000	-	-	-	-	-	-	247.310	1	247.310	-	-	-	247.310	1	247.310
GPS III SV11+ ^(†)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	247.310	-	-	-	-	-	247.310
Non Recurring Cost																		
GPS III SV11+ Non Recurring Engineering (NRE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - SpaceVehicle End Item Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	247.310	-	-	-	-	-	247.310
Checkout and Launch - CheckoutAndLaunch End Item Cost																		
GPS III SV 03-10 Launch Services	-	-	0.000	-	-	-	-	-	-	-	-	-	1.700	-	-	-	-	1.700

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **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) : **MDAP/MAIS Code:**

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 11+ Launch Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Checkout and Launch - CheckoutAndLaunch End Item Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.700	-	-	-	-	-	1.700
Support - Support End Item Cost																		
A&AS - GPS III SV 03-10 FFRDC	-	-	-	-	-	-	-	-	-	-	-	15.400	-	-	-	-	-	15.400
A&AS - GPS III SV 03-10 PMA	-	-	-	-	-	-	-	-	-	-	-	18.500	-	-	-	-	-	18.500
GPS III SV 03-10 Launch/ On-Orbit Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ICS Labor - GPS III SV 03-10 On-Orbit Incentive	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GPS III SV 03-10 Storage and MRT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GPS III SV 11+ FFRDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GPS III SV 11+ PMA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GPS III SV 11+ Launch and On Orbit Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	33.900	-	-	-	-	-	33.900
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	286.218	1	286.218	-	-	-	286.218	1	286.218

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Hardware - GPS III Cost																		
Recurring Cost																		
GPS III SV 11+ SAR	-	-	3.570	-	-	3.419	-	-	3.482	-	-	-	-	-	-	-	-	13.779
<i>Subtotal: Recurring Cost</i>	-	-	3.570	-	-	3.419	-	-	3.482	-	-	-	-	-	-	-	-	13.779
<i>Subtotal: Hardware - GPS III Cost</i>	-	-	3.570	-	-	3.419	-	-	3.482	-	-	-	-	-	-	-	-	13.779
Space Vehicle - SpaceVehicle End Item Cost																		
Recurring Cost																		
GPS III SV 03-10 ⁽¹⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247.310	1	247.310

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **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) : **MDAP/MAIS Code:**

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
GPS III SV11+(^t)	152.465	1	152.465	126.326	3	378.979	221.196	3	663.587	245.647	3	736.942	282.635	12	3,391.617	241.981	22	5,323.590
<i>Subtotal: Recurring Cost</i>	-	-	152.465	-	-	378.979	-	-	663.587	-	-	736.942	-	-	3,391.617	-	-	5,570.900
Non Recurring Cost																		
GPS III SV11+ Non Recurring Engineering (NRE)	-	-	-	-	-	202.200	-	-	85.100	-	-	-	-	-	-	-	-	287.300
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	202.200	-	-	85.100	-	-	-	-	-	-	-	-	287.300
<i>Subtotal: Space Vehicle - SpaceVehicle End Item Cost</i>	-	-	152.465	-	-	581.179	-	-	748.687	-	-	736.942	-	-	3,391.617	-	-	5,858.200
Checkout and Launch - CheckoutAndLaunch End Item Cost																		
GPS III SV 03-10 Launch Services	-	-	4.800	-	-	6.200	-	-	6.300	-	-	4.700	-	-	1.500	-	-	25.200
GPS III SV 11+ Launch Services	-	-	-	-	-	-	-	-	-	-	-	1.700	-	-	76.800	-	-	78.500
<i>Subtotal: Checkout and Launch - CheckoutAndLaunch End Item Cost</i>	-	-	4.800	-	-	6.200	-	-	6.300	-	-	6.400	-	-	78.300	-	-	103.700
Support - Support End Item Cost																		
A&AS - GPS III SV 03-10 FFRDC	-	-	5.290	-	-	1.064	-	-	1.124	-	-	1.764	-	-	7.270	-	-	31.912
A&AS - GPS III SV 03-10 PMA	-	-	7.176	-	-	2.536	-	-	4.119	-	-	6.036	-	-	25.078	-	-	63.445
GPS III SV 03-10 Launch/ On-Orbit Support	-	-	-	-	-	1.500	-	-	8.500	-	-	15.400	-	-	111.900	-	-	137.300
ICS Labor - GPS III SV 03-10 On-Orbit Incentive	-	-	-	-	-	-	-	-	1.000	-	-	3.000	-	-	92.000	-	-	96.000
GPS III SV 03-10 Storage and MRT	-	-	1.200	-	-	3.700	-	-	6.300	-	-	8.400	-	-	22.900	-	-	42.500
GPS III SV 11+ FFRDC	-	-	17.710	-	-	25.536	-	-	26.695	-	-	27.636	-	-	80.100	-	-	177.677
GPS III SV 11+ PMA	-	-	24.024	-	-	60.864	-	-	97.832	-	-	94.564	-	-	275.852	-	-	553.136
GPS III SV 11+ Launch and On Orbit Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	485.500	-	-	485.500
<i>Subtotal: Support - Support End Item Cost</i>	-	-	55.400	-	-	95.200	-	-	145.570	-	-	156.800	-	-	1,100.600	-	-	1,587.470
Gross/Weapon System Cost	216.235	1	216.235	228.666	3	685.998	301.346	3	904.039	300.047	3	900.142	-	-	4,570.517	687.559	11	7,563.149

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

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Exhibit P-5a, Procurement History and Planning: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	Item Number / Title [DODIC]: - / GPS III Space Segment
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
GPS III SV 03-10		2016	Lockheed Martin / Denver, CO	C / FPIF	LAAFB, CA	Mar 2016	Sep 2021	1	247.310	Y		Mar 2015
GPS III SV11+([†])		2017	TBD / TBD	C / FPIF	LAAFB, CA	Feb 2017	Feb 2022	1	152.465	Y		Feb 2016
GPS III SV11+([†])		2018	TBD / TBD	C / FPIF	LAAFB, CA	Feb 2018	Feb 2023	3	126.326	Y		Feb 2016
GPS III SV11+([†])		2019	TBD / TBD	C / FPIF	LAAFB, CA	Feb 2019	Feb 2024	3	221.196	Y		Feb 2016
GPS III SV11+([†])		2020	TBD / TBD	C / FPIF	LAAFB, CA	Feb 2020	Feb 2025	3	245.647	Y		Feb 2016

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment **Item Number / Title [DODIC]:** - / GPS III Space Segment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
GPS III SV11+																															
	1	2017	AF	1	-	1																									
	1	2018	AF	3	-	3																									
	1	2019	AF	3	-	3																									
	1	2020	AF	3	-	3																									
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

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Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment **Item Number / Title [DODIC]:**
- / GPS III Space Segment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	
GPS III SV11+																																
	1	2017	AF	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	1	2018	AF	3	-	3					A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	1	2019	AF	3	-	3																				A	-	-	-	-	-	3
	1	2020	AF	3	-	3																									3	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	

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Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	Item Number / Title [DODIC]: - / GPS III Space Segment
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L		
GPS III SV11+																																	
	1	2017	AF	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	1	2018	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	1	2019	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	1	2020	AF	3	-	3																											3
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L		

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Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment **Item Number / Title [DODIC]:** - / GPS III Space Segment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
GPS III SV11+																															
	1	2017	AF	1	-	1	-	-	-	-	-	1																			
	1	2018	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-		
	1	2019	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	1	2020	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

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Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment **Item Number / Title [DODIC]:** - / GPS III Space Segment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
GPS III SV11+																															
	1	2017	AF	1	1	-																									
	1	2018	AF	3	2	1	1																								
	1	2019	AF	3	-	3	-	-	-	-	1	-	-	-	1	-	-	-	1												
	1	2020	AF	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** GPSIII / GPS III Space Segment **Item Number / Title [DODIC]:** - / GPS III Space Segment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2026												Fiscal Year 2027													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	Calendar Year 2026												Calendar Year 2027												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
GPS III SV11+																															
	1	2017	AF	1	1	-																							-		
	1	2018	AF	3	3	-																							-		
	1	2019	AF	3	3	-																							-		
	1	2020	AF	3	2	1	1																						-		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	Item Number / Title [DODIC]: - / GPS III Space Segment
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MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	TBD - TBD	-	-	-	-	-	-	-	-	-	-	-	-

"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, Advance Procurement Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment
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Program Elements for Code B Items:	Other Related Program Elements:
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Line Item MDAP/MAIS Code: 292	Item MDAP/MAIS Code(s):
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	87.000 ⁽¹⁾	-	-	-	41.462	122.962	125.162	127.417	518.200	1,022.203
Net Procurement (P1) (<i>\$ in Millions</i>)	-	-	87.000 ⁽¹⁾	-	-	-	41.462	122.962	125.162	127.417	518.200	1,022.203
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	87.000 ⁽¹⁾	-	-	-	41.462	122.962	125.162	127.417	518.200	1,022.203

Description:

As of the FY16 PB submission, space programs satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 advanced procurement funding is \$816.487M

GPS is a satellite-based radio navigation system that serves military and civil users worldwide. GPS users process satellite signals to determine accurate position, velocity and time. GPS must comply with 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 Global Positioning System (GPS) 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. The system is composed of three segments: user equipment (funded under PE 0305164F), space, and a control network (funded under PE 0603423F and 0305165F). RDT&E,AF funding for GPS III, including development and acquisition of Space Vehicles (SV) 01-02, is in this PE 0305265F, GPS III Space Segment. The satellites broadcast high-accuracy data using precisely synchronized signals which are received and processed by user equipment installed in military platforms. This 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.

GPS III is the next generation SV to join the GPS constellation. GPS III SVs will deliver significant enhancements, including a new civil (L1C) Galileo-compatible signal and enhanced anti-jam power.

In an effort to implement Better Buying Power 3.0 to control production costs the Air Force intends to create a competitive environment. Options for the GPS III competition continue to be explored by USD(AT&L). The Air Force's notional plan is for a two-phased competition process. Phase one is a Production Readiness competition for up to three firm-fixed price contracts to mature competitors' production designs for a competition in Phase two. Phase two will be a full and open competition for up to 22 GPS III Production SVs with an expected award in FY17/18.

The GPS directorate received USD(AT&L) approval to purchase GPS III SV09-10 at the December 2014 Defense Acquisition Board in order to sustain the constellation while competitive options are pursued. The GPS III SV09-10 purchase will be on the current Lockheed Martin contract as technical equivalents of SV01-08.

Total GPS III Space Segment 3020/3021 funds are \$4881M.

Funding for this exhibit is contained in PE 0305265F.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment
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Program Elements for Code B Items:	Other Related Program Elements:
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Line Item MDAP/MAIS Code: 292	Item MDAP/MAIS Code(s):
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Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
/ GPS III Space Segment	P-10		- / -	- / -	- / 87.000	- / -	- / -	- / -
Total Gross/Weapon System Cost			- / -	- / -	- / 87.000 ⁽¹⁾	- / -	- / -	- / -

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
/ GPS III Space Segment	P-10		- / 41.462	- / 122.962	- / 125.162	- / 127.417	- / 518.200	- / 1,022.203
Total Gross/Weapon System Cost			- / 41.462	- / 122.962	- / 125.162	- / 127.417	- / 518.200	- / 1,022.203

*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 add due to rounding.

Justification:
 No FY16 Advance Procurement funding is requested.

Realign GPS III Advance Procurement funds to support new buy strategy for SV11+

Footnotes:
⁽¹⁾ \$87.0M FY15 Advanced Procurement was appropriated in MPAF MGPS00 GPS III. Due to transition to SPAF in FY16, FY15 Advanced Procurement will be reported with SPAF to preserve Weapon System Costs.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	P-5 Number / Title: - / GPS III Space Segment
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First System (2016) Award Date: January 2015	First System (2016) Completion Date: January 2015	Interval Between Systems: 0 Months
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GPS III Space Segment	Production Leadtime (Months)	Prior Years (Each)	FY 2014 (Each)	FY 2015 (Each)	FY 2016 (Each)	FY 2017 (Each)	FY 2018 (Each)	FY 2019 (Each)	FY 2020 (Each)	To Complete (Each)	Total (Each)
Quantity		-	-	-	1	1	3	3	3	-	11

Cost Element	When Rqd (Months)	Prior Years (\$ M)	FY 2014 (\$ M)	FY 2015 (\$ M)	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	To Complete (\$ M)	Total (\$ M)
CFE											
GPS III SV 03-10	0	-	-	87.000	-	-	-	-	-	-	87.000
GPS III SV11+	0	-	-	-	-	41.462	122.962	125.162	127.417	518.200	935.203
<i>Total: CFE</i>		-	-	87.000	-	41.462	122.962	125.162	127.417	518.200	1,022.203
Total Advance Procurement/Obligation Authority		-	-	87.000	-	41.462	122.962	125.162	127.417	518.200	1,022.203

UNCLASSIFIED

Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: GPSIII / GPS III Space Segment	P-5 Number / Title: - / GPS III Space Segment
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Cost Elements	QPA <i>(Each)</i>	FY 2016					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2016 Qty <i>(Each)</i>	For FY	
CFE							
GPS III SV 03-10	-						-
GPS III SV11+	-						-
<i>Total: CFE</i>							-
Total Advance Procurement/Obligation Authority							-

Description:
Funding procures long lead items (e.g. atomic clocks, critical Bus hardware items and other long lead components).

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: Space Programs

P-1 Line Item Number / Title:
MCOMSE / Spaceborne Equipment (COMSEC)

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

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	18.362	-	18.362	22.656	21.894	20.878	21.302	-	105.092
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	-	-	-	18.362	-	18.362	22.656	21.894	20.878	21.302	-	105.092
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	18.362	-	18.362	22.656	21.894	20.878	21.302	-	105.092

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

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

Description:

In FY2016, Appn 3020, BA:05 Line Item #MCOMSE, Spaceborne Equip transferred to Appn 3021.

Space Communications Security (COMSEC) procures cryptographic products to operate in the space environment. Space COMSEC equipment is a foundational element in achieving AF space and information superiority. Space COMSEC is an enabler for space system compliance with DoDI 8581.01 - Information Assurance (IA) Policy for Space Systems Used by the Department of Defense. Space COMSEC mission provides communications security products and lifecycle sustainment support to all DoD satellite systems and commercial systems supporting DOD missions. It 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 and potential loss of life. Space COMSEC also provides secure transmission of information collected by satellite sensors, 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 also enables Transmission Security (TRANSEC) for space platforms. Space COMSEC mission procures crypto end items and logistics elements to support developing and operational space systems.

Funding for this effort is in program element (PE) 0303140F.

The FY2016 funding request was reduced by \$3.628 million to account for the availability of prior execution balances.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs

P-1 Line Item Number / Title:
 MC0MSE / Spaceborne Equipment (COMSEC)

ID Code (A=Service Ready, B=Not Service Ready) : A			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
Spaceborne Equipment (COMSEC)	P-5, P-5a		- / -	- / -	- / -	- / 18.362	- / -	- / 18.362
Total Gross/Weapon System Cost			- / -	- / -	- / -	- / 18.362	- / -	- / 18.362

*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 add due to rounding.

Justification:

a. Products: FY16 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. 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 requested in FY16 are identified on the following P-5 and are representative of items to be procured. Items procured during execution may change based on critical equipment needed to support current Air Force mission requirements.

b. Logistics: FY16 funding provides for the production of Space COMSEC Logistics elements. Space COMSEC products typically have a 20 to 40 year lifecycle to support development, launch and operation of multiple Air 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.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MCOMSE / Spaceborne Equipment (COMSEC)	Item Number / Title [DODIC]: - / Spaceborne Equipment (COMSEC)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	18.362	-	18.362
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	-	-	-	18.362	-	18.362
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	18.362	-	18.362

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Support - Support End Item Cost																		
Products ^(†)	-	-	-	-	-	-	-	-	-	0.052	326	16.832	-	-	-	0.052	326	16.832
Logistics ^(†)	-	-	-	-	-	-	-	-	-	0.765	2	1.530	-	-	-	0.765	2	1.530
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	18.362	-	-	-	-	-	18.362
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	18.362	-	-	-	-	-	18.362

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2016 Air Force							Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1			P-1 Line Item Number / Title: MCOMSE / Spaceborne Equipment (COMSEC)				Item Number / Title [DODIC]: - / Spaceborne Equipment (COMSEC)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Products		2016	MULTIPLE / MULTIPLE	C / FFP	AFMC/ESC	Sep 2016	Jan 2018	326	0.052	Y		
Logistics		2016	MULTIPLE / MULTIPLE	C / FFP	AFMC/ESC	Sep 2016	Jul 2017	2	0.765	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
 1: Space Programs

P-1 Line Item Number / Title:
 MGPS00 / Global Positioning (Space)

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

Line Item MDAP/MAIS Code: 166 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411

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

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

Description:

As of the FY16 PB submission, space programs satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 procurement funding is \$3974.032M.

The Navstar Global Positioning System (GPS) 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. The system is composed of three segments: user equipment (funded under PE 0305164F), satellites and a control network. The satellites broadcast high-accuracy data using precisely synchronized signals which are received and processed by user equipment installed in military platforms. This 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 broadcasted from the satellites to maintain system precision.

The GPS IIF program will continue Launch and On-Orbit Support (LOOS) on the LOOS fixed price services contract with a period of performance from 1 Jan 2013 to 31 Dec 2017. The contract includes: launch readiness activities, launch and on-orbit checkout of up to nine GPS IIF Space Vehicles (SVs). This includes the services to store, maintain, and transport up to nine GPS IIF SVs and on-orbit operations for up to twelve GPS IIF SVs.

GPS IIF is the follow-on program to IIR-M (last launch Aug 09) and was awarded in 1995 to Rockwell International (now Boeing, Seal Beach, California). The contract was modified in 2002 for the modernization of all IIF SVs. Of the 12 satellite vehicles contracted for, 8 have been launched and are successfully on orbit (the eighth IIF was successfully launched in October 2014). The remaining 4 vehicles have been accepted; 1 is at the Cape awaiting launch in March 2015, and the remaining 3 SVs are in storage completing hardware repair and are on track to meet their respective launch date. The Block IIF program continues launch readiness activities, to include storage and transport services, launch and on-orbit checkout, and on-orbit operations.

Block IIF is launched on the Evolved Expendable Launch Vehicle (EELV). Launch schedules are established based on constellation sustainment needs and launch manifest constraints. The system hosts the Nuclear Detonation (NUDET) Detection System (NDS) funded under PE 0305913F.

The acquisition strategy for the Block IIF satellites was a competitive multiyear contract for 6 satellites awarded in FY1996. Options for 6 additional Space Vehicles (SVs) were exercised in FY2004 and FY2005 (3 each year). Block IIF satellites have been modernized to include a new military signal and a second and third civil signal.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs		P-1 Line Item Number / Title: MGPS00 / Global Positioning (Space)
ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements:
Line Item MDAP/MAIS Code: 166	Item MDAP/MAIS Code(s):	

Funding for this exhibit contained in PE 0305165F.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs

P-1 Line Item Number / Title:
 MGPS00 / Global Positioning (Space)

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

Line Item MDAP/MAIS Code: 166 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
Global Positioning (Space)	P-5		- / -	- / -	- / -	- / 66.135	- / -	- / 66.135
Total Gross/Weapon System Cost			- / -	- / -	- / -	- / 66.135	- / -	- / 66.135

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
Global Positioning (Space)	P-5		- / 13.276	- / -	- / -	- / -	- / -	- / 79.411
Total Gross/Weapon System Cost			- / 13.276	- / -	- / -	- / -	- / -	- / 79.411

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

Justification:
 FY2016 funding is required for Global Positioning System (GPS) Block IIF satellite launch and on-orbit support, including satellite storage, transportation from the factory to the launch site, launch processing and booster integration, launch operations, and on-orbit checkout and operations.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1				P-1 Line Item Number / Title: MGPS00 / Global Positioning (Space)				Item Number / Title [DODIC]: - / Global Positioning (Space)				

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	66.135	-	66.135	13.276	-	-	-	-	79.411

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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)
Checkout and Launch - GPS Cost																		
Integration & Checkout	-	-	-	-	-	-	-	-	-	-	-	0.892	-	-	-	-	-	0.892
Launch Services Planning	-	-	-	-	-	-	-	-	-	-	-	7.166	-	-	-	-	-	7.166
Propellants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Reactivation & Transport	-	-	-	-	-	-	-	-	-	-	-	5.925	-	-	-	-	-	5.925
<i>Subtotal: Checkout and Launch - GPS Cost</i>	-	-	-	-	-	-	-	-	-	-	-	13.983	-	-	-	-	-	13.983
Support - GPS Cost																		
ICS Labor - Technical Support	-	-	-	-	-	-	-	-	-	-	-	1.464	-	-	-	-	-	1.464
A&AS - Program Support	-	-	-	-	-	-	-	-	-	-	-	4.096	-	-	-	-	-	4.096
ICS Labor - On-Orbit Planning Support	-	-	-	-	-	-	-	-	-	-	-	46.592	-	-	-	-	-	46.592
<i>Subtotal: Support - GPS Cost</i>	-	-	-	-	-	-	-	-	-	-	-	52.152	-	-	-	-	-	52.152
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	66.135	-	-	-	-	-	66.135

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** MGPS00 / Global Positioning (Space) **Item Number / Title [DODIC]:**
- / Global Positioning (Space)

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

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Checkout and Launch - GPS Cost																		
Integration & Checkout	-	-	0.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.692
Launch Services Planning	-	-	5.570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.736
Propellants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage Reactivation & Transport	-	-	1.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.125
<i>Subtotal: Checkout and Launch - GPS Cost</i>	-	-	7.570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.553
Support - GPS Cost																		
ICS Labor - Technical Support	-	-	1.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.928
A&AS - Program Support	-	-	4.242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.338
ICS Labor - On-Orbit Planning Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.592
<i>Subtotal: Support - GPS Cost</i>	-	-	5.706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.858
Gross/Weapon System Cost	-	-	13.276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79.411

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
 1: Space Programs

P-1 Line Item Number / Title:
 MS0554 / Def Meteorological Sat Prog(Space)

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

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	89.351	-	89.351	29.738	14.872	-	-	-	133.961
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	-	-	-	89.351	-	89.351	29.738	14.872	-	-	-	133.961
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	89.351	-	89.351	29.738	14.872	-	-	-	133.961

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

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

Description:

As of the FY16 PB submission, space programs satellite procurement funding has be re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 procurement funding is \$292.358M

The Defense Meteorological Satellite Program (DMSP) is a fully operational program supporting a broad range of national security users who require timely and accurate global weather information. DMSP is DoD's 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).

DMSP Flight-19 (F-19) and F-18 are the primary operational satellites flying in the early and mid-morning orbits respectively. In 2013 the Air Force completed a comprehensive Service Life Extension Program (SLEP) to mitigate all known life-limiting issues with the last two DMSP satellites, F-19 and F-20. DMSP F-19 launched successfully in April 2014 to replace F-17 in the early-morning orbit.

DMSP F-20 continues through final post-SLEP Integration and Test and will complete all environmental testing in March 2015 and begin installs and final preparations for launch processing. DMSP F-20 will be launch-ready as soon as April 2016.

Funding for this effort is in PE 0305160F.

Total MS0554 / Def Meteorological Sat Prog (Space) 3020/3021 funds are \$292.358M.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs

P-1 Line Item Number / Title:
 MS0554 / Def Meteorological Sat Prog(Space)

ID Code (A=Service Ready, B=Not Service Ready) : A			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
Def Meteorological Sat Prog(Space)	P-5		- / -	- / -	- / -	- / 89.351	- / -	- / 89.351
Total Gross/Weapon System Cost			- / -	- / -	- / -	- / 89.351	- / -	- / 89.351

*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 add due to rounding.

Justification:
 FY16 funding continues to support spacecraft integration and test sensor support and services contracts including:

- DMSF F20 final spacecraft and sensors integration, test, and launch preparation
- EELV mission unique support
- Engineering analyses, anomaly resolution, and related support activities
- Repair/replacement testing of shelf life limited components including but not limited to pyrotechnics and spacecraft batteries
- Program management support to include conducting studies and analyses, develop strategies or plans for continuity of environmental data collection

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Exhibit P-5, Cost Analysis: PB 2016 Air Force													Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: MS0554 / Def Meteorological Sat Prog(Space)						Item Number / Title [DODIC]: - / Def Meteorological Sat Prog(Space)						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Resource Summary				Prior Years		FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Procurement Quantity (Units in Each)				-		-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)				-		-		-		89.351		-		89.351				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P1) (\$ in Millions)				-		-		-		89.351		-		89.351				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Total Obligation Authority (\$ in Millions)				-		-		-		89.351		-		89.351				
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Millions)				-		-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.																		
Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 - SpaceVehicle End Item Cost																		
Recurring Cost																		
Spacecraft Integration and Test--CLIN 1	-	-	-	-	-	-	-	-	-	-	-	39.100	-	-	-	-	-	39.100
LM Spacecraft Integ & Test--Total Awd Fee	-	-	-	-	-	-	-	-	-	-	-	4.000	-	-	-	-	-	4.000
Consolidated Sensor Support and Services--CLIN 1	-	-	-	-	-	-	-	-	-	-	-	18.000	-	-	-	-	-	18.000
NGC Total Award Fee	-	-	-	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
Sensor Lab Support	-	-	-	-	-	-	-	-	-	-	-	6.000	-	-	-	-	-	6.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	69.100	-	-	-	-	-	69.100
<i>Subtotal: Space Vehicle - SpaceVehicle End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	69.100	-	-	-	-	-	69.100
Checkout and Launch - CheckoutAndLaunch End Item Cost																		
VAFB Launch Base Support	-	-	-	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
EELV Mission Unique Hardware	-	-	-	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
<i>Subtotal: Checkout and Launch - CheckoutAndLaunch End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	2.500	-	-	-	-	-	2.500
Support - Support End Item Cost																		
FFRDC (Tech)	-	-	-	-	-	-	-	-	-	-	-	12.800	-	-	-	-	-	12.800

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Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: MS0554 / Def Meteorological Sat Prog(Space)						Item Number / Title [DODIC]: - / Def Meteorological Sat Prog(Space)					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Program Management Administration	-	-	-	-	-	-	-	-	-	-	-	4.951	-	-	-	-	-	4.951
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	17.751	-	-	-	-	-	17.751
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	89.351	-	-	-	-	-	89.351

Remarks:
Total MS0554 / Def Meteorological Sat Prog(Space) 3020/3021 funds are \$292.358M.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
 1: Space Programs

P-1 Line Item Number / Title:
 MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604853F

Line Item MDAP/MAIS Code: 176 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671

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

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

Description:

As of the FY16 submission, space programs procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force to appropriation 3021, Space Procurement Air Force, in FY16 and beyond.

The Air Force requests funding for the Evolved Expendable Launch Vehicle (EELV) program in 2 separate P-1 line items. Launch services will be executed from the Evolved Expendable Launch Veh (Space) P-1 line item. Launch capability will be executed from the Evolved Expendable Launch Veh (Infrastructure) P-1 line item. Both line items are necessary to achieve successful placement of National Security Space (NSS) space vehicles (SVs) on-orbit.

Funding for this exhibit is contained in PE 0305953F. Related RDT&E, AF funding is contained in PE 0604853F. This exhibit only provides funding for Evolved Expendable Launch Veh (Infrastructure).

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 (medium through heavy) of vehicles in the program. EELV procures launch services and is not a weapon system. The program provides launch capacity for Government National Launch Forecast (NLF) requirements, but does not take ownership of any specific launch hardware. The requirements for EELV launch services are derived from multiple spacecraft requirements. "To Complete" projections include only known requirements at this time.

The EELV program is a Major Defense Acquisition Program (MDAP) Acquisition Category (ACAT) 1D program that acquires launch services to provide critical space support required to satisfy Department of Defense (DoD) warfighter, national security, and other Government space lift missions while fostering interagency and commercial cooperation. The EELV program provides satellite delivery to specific orbits through certified launch vehicle providers. To maintain maximum flexibility to meet NSS requirements, Air Force acquires launch services through a white tail concept where designating configurations to specific missions is accomplished just-in-time to meet mission integration requirements.

The Air Force structured the EELV program with a new cost saving acquisition strategy that includes a quantity and rate commitment with the current provider and enables competition if one or more New Entrants are certified. This strategy stabilized the industrial base, provided predictability to maintain mission success, and reduced costs. The Air Force, National Reconnaissance Office (NRO), and the National Aeronautics and Space Administration (NASA) agreed to a coordinated strategy for certification of New Entrants to launch payloads in support of NSS and other USG requirements. The Air Force continues to actively evaluate the addition of New Entrants to reliably launch NSS requirements. Once a New Entrant demonstrates a successful launch the Air Force intends to award integration studies. If competition is not

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force	Date: February 2015
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Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs	P-1 Line Item Number / Title: MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY
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ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements: 0604853F
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Line Item MDAP/MAIS Code: 176	Item MDAP/MAIS Code(s):
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viable at the time of need, missions will be awarded to the incumbent. The Air Force plans to compete launch service procurements beginning in FY18, if there is more than one certified provider for some or all reference orbits. The implementation of this new strategy enables the DoD to reliably place NSS space vehicles into earth orbit.

In 2013, the Air Force combined the Launch Services contract and Launch Capability contract into a single contract. The Launch Capability cost plus incentive fee contract line items are annual options and provide launch infrastructure support which includes, but is not limited to, systems and factory engineering, program management, standard integration/testing, launch and range activities, infrastructure, parts obsolescence mitigation, post mission analysis, and studies and analysis. The contract features a Mission Success Incentive fee which incentivizes both mission success and cost control for cost plus contract line items.

The FY2016 funding request was reduced by \$168 million to account for the availability of prior year funds to forward finance launch infrastructure, services, and range activities.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs
P-1 Line Item Number / Title: MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604853F

Line Item MDAP/MAIS Code: 176 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
EVOLVED EXPENDABLE LAUNCH CAPABILITY	P-5, P-5a		- / 0.000	- / -	- / -	- / 571.276	- / -	- / 571.276
Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 571.276	- / -	- / 571.276

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
EVOLVED EXPENDABLE LAUNCH CAPABILITY	P-5, P-5a		- / 778.217	- / 764.315	- / 511.416	- / 520.632	- / 9,504.815	- / 12,650.671
Total Gross/Weapon System Cost			- / 778.217	- / 764.315	- / 511.416	- / 520.632	- / 9,504.815	- / 12,650.671

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

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

Justification:
 Fiscal Year 2016 Evolved Expendable Launch Veh (Infrastructure) procurement funding is required to support launch and acquisition of National Security Space (NSS) launch vehicles. Evolved Expendable Launch Veh (Infrastructure) is annually funded and includes but is not limited to systems and factory engineering, program management, standard integration/testing, launch and range activities, infrastructure, parts obsolescence mitigation, post mission analysis, studies, analysis and support costs to meet mission requirements. Funds are also required for fully funded competitive missions with related studies/analysis and postponement fees funded annually.

Launch Services (EELVA) is requested under a separate P-1 line item in accordance with the direction in the Consolidated and Further Continuing Appropriations Act 2013.

A revised Memorandum of Understanding (MOU) between the Air Force and National Reconnaissance Office (NRO), dated 7 October 2011 provides a cost share agreement for the Launch Capability of 75 percent (Air Force) and 25 percent (NRO). This PE contains only the Air Force position. The SV is responsible for funding mission unique integration/testing.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY	Item Number / Title [DODIC]: - / EVOLVED EXPENDABLE LAUNCH CAPABILITY

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	571.276	-	571.276	778.217	764.315	511.416	520.632	9,504.815	12,650.671

(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 add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 Capability ⁽¹⁾	-	-	0.000	-	-	-	-	-	-	556.233	1	556.233	-	-	-	556.233	1	556.233
Subtotal: Recurring Cost	-	-	0.000	-	-	-	-	-	-	-	-	556.233	-	-	-	-	-	556.233
Subtotal: Launch - Launch End Item Cost	-	-	0.000	-	-	-	-	-	-	-	-	556.233	-	-	-	-	-	556.233
Support - Support End Item Cost																		
Program Management Administration - Other Government Costs	-	-	0.000	-	-	-	-	-	-	-	-	0.555	-	-	-	-	-	0.555
Range, Certification, and Other Direct Govt Costs	-	-	0.000	-	-	-	-	-	-	-	-	14.488	-	-	-	-	-	14.488
Subtotal: Support - Support End Item Cost	-	-	0.000	-	-	-	-	-	-	-	-	15.043	-	-	-	-	-	15.043
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	571.276	-	-	-	-	-	571.276

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Launch - Launch End Item Cost																		

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Exhibit P-5, Cost Analysis: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY	Item Number / Title [DODIC]: - / EVOLVED EXPENDABLE LAUNCH CAPABILITY

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Recurring Cost																		
Launch Capability ^(t)	761.945	1	761.945	748.303	1	748.303	500.499	1	500.499	509.519	1	509.519	9,307.516	1	9,307.516	2,064.003	6	12,384.015
<i>Subtotal: Recurring Cost</i>	-	-	761.945	-	-	748.303	-	-	500.499	-	-	509.519	-	-	9,307.516	-	-	12,384.015
<i>Subtotal: Launch - Launch End Item Cost</i>	-	-	761.945	-	-	748.303	-	-	500.499	-	-	509.519	-	-	9,307.516	-	-	12,384.015
Support - Support End Item Cost																		
Program Management Administration - Other Government Costs	-	-	0.570	-	-	0.594	-	-	0.599	-	-	0.610	-	-	7.203	-	-	10.131
Range, Certification, and Other Direct Govt Costs	-	-	15.702	-	-	15.418	-	-	10.318	-	-	10.503	-	-	190.096	-	-	256.525
<i>Subtotal: Support - Support End Item Cost</i>	-	-	16.272	-	-	16.012	-	-	10.917	-	-	11.113	-	-	197.299	-	-	266.656
Gross/Weapon System Cost	-	-	778.217	-	-	764.315	-	-	511.416	-	-	520.632	-	-	9,504.815	-	-	12,650.671

Remarks:

A revised Memorandum of Understanding (MOU) between the Air Force and National Reconnaissance Office (NRO), dated 7 October 2011 provides a cost share agreement for the Launch Capability of 75 percent (Air Force) and 25 percent(NRO).

Prior year funding buy-down of FY14 launch capability requirements contributed to meeting FY14 Bipartisan Budget Act (BBA) objectives.

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

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Exhibit P-5a, Procurement History and Planning: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSEELC / EVOLVED EXPENDABLE LAUNCH CAPABILITY	Item Number / Title [DODIC]: - / EVOLVED EXPENDABLE LAUNCH CAPABILITY
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Launch Capability		2016	(ULA/Various / CO/TBD	Various	SMC, LA AFB, CA	Oct 2015	Oct 2015	1	556.233	Y		Mar 2012
Launch Capability		2017	United Launch Alliance (ULA)/Various / CO/TBD	Various	SMC, LA AFB, CA	Oct 2016	Oct 2016	1	761.945	Y		Mar 2012
Launch Capability		2018	United Launch Alliance (ULA)/Various / CO/TBD	Various	SMC, LA AFB, CA	Oct 2017	Oct 2017	1	748.303	Y		Mar 2012
Launch Capability		2019	United Launch Alliance (ULA)/Various / CO/TBD	Various	SMC, LA AFB, CA	Oct 2018	Oct 2018	1	500.499	Y		Mar 2012
Launch Capability		2020	TBD / CO/TBD	Various	SMC, LA AFB, CA	Oct 2019	Oct 2019	1	509.519	Y		Oct 2018

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
 1: Space Programs

P-1 Line Item Number / Title:
 MSEELV / Evolved Expendable Launch Veh(Space)

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604853F

Line Item MDAP/MAIS Code: 176 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	5	-	5	5	4	5	5	34	58
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000 ⁽¹⁾	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	160.040	-	160.040	168.511	210.630	258.993	263.659	303.745	265.963

Description:

The Air Force requests funding for the Evolved Expendable Launch Vehicle (EELV) program in 2 separate P-1 line items. Launch services will be executed from the Evolved Expendable Launch Veh (Space) P-1 line item. Launch capability will be executed from the Evolved Expendable Launch Veh (Infrastructure)P-1 line item. Both line items are necessary to achieve successful placement of National Security Space (NSS) space vehicles (SVs) on-orbit. Funding for this exhibit is contained in PE 0305953F. Related RDT&E, AF funding is contained in PE 0604853F. This exhibit only provides funds for EELV.

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 (medium through heavy) of vehicles in the program. EELV 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. The requirements for EELV launch services are derived from multiple spacecraft requirements. "To Complete" projections include only known requirements at this time.

The EELV 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 Government space lift missions while fostering inter-agency and commercial cooperation. The EELV program provides satellite delivery to specific orbits through certified Launch Vehicle (LV) providers. To maintain maximum flexibility to meet NSS requirements, the Air Force acquires launch services through a white tail concept, where designating configurations to specific missions is accomplished just-in-time to meet mission integration requirements.

The Air Force structured the EELV program with a new cost saving acquisition strategy that includes a quantity and rate commitment with the current provider and enables competition if one or more New Entrants are certified. This strategy stabilized the industrial base, provided predictability to maintain mission success, and reduced costs. The Air Force, National Reconnaissance Office (NRO), and the National Aeronautics and Space Administration (NASA) agreed to a coordinated strategy for certification of New Entrants to launch payloads in support of NSS and other USG requirements. The Air Force continues to actively evaluate the addition of New Entrants to reliably launch NSS requirements. Once a New Entrant demonstrates a successful launch the Air Force intends to award integration studies. If competition is not viable at the time of need, missions will be awarded to the incumbent. The Air Force plans to compete launch service procurements beginning in FY18, if there is more than one certified provider for some or all reference orbits. The implementation of this new strategy enables the DoD to reliably place NSS space vehicles into earth orbit.

In 2015, Congress added an additional competitive "mission" that will be fully funded in this EELV P-1 line item (i.e., no Capability funds).

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
1: Space Programs

P-1 Line Item Number / Title:
MSEELV / Evolved Expendable Launch Veh(Space)

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604853F

Line Item MDAP/MAIS Code: 176 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
Evolved Expendable Launch Veh(Space)	P-5, P-5a, P-21		- / 0.000	- / -	- / -	5 / 800.201	- / -	5 / 800.201
Total Gross/Weapon System Cost			- / 0.000 ⁽¹⁾	- / -	- / -	5 / 800.201	- / -	5 / 800.201

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
Evolved Expendable Launch Veh(Space)	P-5, P-5a, P-21		5 / 842.557	4 / 842.519	5 / 1,294.965	5 / 1,318.294	34 / 10,327.332	58 / 15,425.868
Total Gross/Weapon System Cost			5 / 842.557	4 / 842.519	5 / 1,294.965	5 / 1,318.294	34 / 10,327.332	58 / 15,425.868

*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 add due to rounding.

Justification:
Fiscal Year 2016 Evolved Expendable Launch Veh (Space) procurement funding is to acquire launch services to provide critical space support required to satisfy Department of Defense (DoD) warfighter, national security, and other Government space lift missions while fostering interagency and commercial cooperation. Launch services include but are not limited to launch vehicle manufacturing, secondary payload standard service, launch propellants, independent mission assurance, evaluation and certification of potential New Entrants, early integration activities and analysis/support. The Department has added funds for an additional launch service which will be fully funded from the EELV P-1 line item (i.e., no Capability funds added). The Air Force is responsible for funding its own missions. All non-Air Force EELV launch services are funded within their respective entities (e.g. NRO, Navy, etc.).

Footnotes:
⁽¹⁾ As of the FY16 PB submission, space programs satellite procurement funding has been re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF)

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Exhibit P-5, Cost Analysis: PB 2016 Air Force										Date: February 2015		
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1					P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)					Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)		

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	5	-	5	5	4	5	5	34	58
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	800.201	-	800.201	842.557	842.519	1,294.965	1,318.294	10,327.332	15,425.868

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	160.040	-	160.040	168.511	210.630	258.993	263.659	303.745	265.963

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 ^(†)	-	-	-	-	-	-	-	-	-	126.596	5	632.981	-	-	-	126.596	5	632.981
Launch Capability	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>632.981</i>	-	-	-	-	-	<i>632.981</i>
<i>Subtotal: Launch - Launch End Item Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>632.981</i>	-	-	-	-	-	<i>632.981</i>
Support - Support End Item Cost																		
Program Management Administration - Other Government Costs	-	-	-	-	-	-	-	-	-	-	-	2.732	-	-	-	-	-	2.732
Program Management Administration - contractor services	-	-	-	-	-	-	-	-	-	-	-	10.668	-	-	-	-	-	10.668
Systems Engineering & Integration	-	-	-	-	-	-	-	-	-	-	-	19.516	-	-	-	-	-	19.516
Range, Certification, and Other Direct Govt Costs	-	-	-	-	-	-	-	-	-	-	-	32.562	-	-	-	-	-	32.562
Mission Assurance	-	-	-	-	-	-	-	-	-	-	-	101.742	-	-	-	-	-	101.742
Assured Access	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>167.220</i>	-	-	-	-	-	<i>167.220</i>

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Exhibit P-5, Cost Analysis: PB 2016 Air Force													Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1							P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)						Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	160.040	5	800.201	-	-	-	160.040	5	800.201

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)

Launch - Launch End Item Cost																		
Recurring Cost																		
Launch Services ^(†)	131.129	5	655.647	166.603	4	666.413	227.064	5	1,135.319	229.471	5	1,147.357	244.382	34	8,308.983	216.322	58	12,546.700
Launch Capability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	655.647	-	-	666.413	-	-	1,135.319	-	-	1,147.357	-	-	8,308.983	-	-	12,546.700
Subtotal: Launch - Launch End Item Cost	-	-	655.647	-	-	666.413	-	-	1,135.319	-	-	1,147.357	-	-	8,308.983	-	-	12,546.700

Support - Support End Item Cost																		
Program Management Administration - Other Government Costs	-	-	2.718	-	-	2.790	-	-	2.900	-	-	3.159	-	-	77.337	-	-	91.636
Program Management Administration - contractor services	-	-	11.082	-	-	11.310	-	-	11.399	-	-	11.581	-	-	96.650	-	-	152.690
Systems Engineering & Integration	-	-	19.244	-	-	16.411	-	-	15.652	-	-	22.580	-	-	266.620	-	-	360.023
Range, Certification, and Other Direct Govt Costs	-	-	33.307	-	-	34.204	-	-	35.229	-	-	36.317	-	-	428.842	-	-	600.461
Mission Assurance	-	-	120.559	-	-	111.391	-	-	94.466	-	-	97.300	-	-	1,148.900	-	-	1,674.358
Assured Access	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Support End Item Cost	-	-	186.910	-	-	176.106	-	-	159.646	-	-	170.937	-	-	2,018.349	-	-	2,879.168
Gross/Weapon System Cost	168.511	5	842.557	210.630	4	842.519	258.993	5	1,294.965	263.659	5	1,318.294	303.745	34	10,327.332	265.963	58	15,425.868

Remarks:

Flyaway is not applicable to a program that procures launch services. Unit cost varies due to the mix (medium through heavy lift) of vehicles in the program.

Launch infrastructure (capability) has been moved to a separate P-1 line item in accordance with direction in the Consolidated and Further Continuing Appropriations Act, 2013.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)	Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
<p>A revised Memorandum of Understanding (MOU) between the NRO and the Air Force, dated 7 October 2011, changed Federally-Funded Research and Development Center (FFRDC) Mission Assurance share ratio from 50/50 Air Force/NRO in FY12 to 60/40 Air Force/NRO in FY13.</p> <p>All non-Air Force launch services are funded by their respective agencies.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)	Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Launch Services ^(†)		2016	United Launch Alliance (ULA)/ New Entrant / CO/Various	Various	SMC, LA AFB, CA	Dec 2015	Dec 2017	5	126.596	Y		Mar 2012
Launch Services ^(†)		2017	United Launch Alliance/ New Entrant / CO/Various	Various	SMC, LA AFB, CA	Dec 2016	Dec 2018	5	131.129	Y		Mar 2012
Launch Services ^(†)		2018	TBD / TBD	Various	SMC, LA AFB, CA	Dec 2017	Dec 2019	4	166.603	Y		Dec 2016
Launch Services ^(†)		2019	TBD / TBD	Various	SMC, LA AFB, CA	Dec 2018	Dec 2020	5	227.064	Y		Dec 2016
Launch Services ^(†)		2020	TBD / TBD	Various	SMC, LA AFB, CA	Dec 2019	Dec 2021	5	229.471	Y		Dec 2016

^(†) indicates the presence of a P-21

Remarks:

The Air Force intends to compete selected launch services in FY2016 and FY2017 if there is a certified new entrant available. Requests for Proposal for competitive launch services will be issued approximately one year prior to the estimated award dates.

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Exhibit P-21, Production Schedule: PB 2016 Air Force															Date: February 2015														
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1										P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)										Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	
Launch Services																																
1		2016	AF	5	-	5			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
2		2017	AF	5	-	5																										5
3		2018	AF	4	-	4																										4
3		2019	AF	5	-	5																										5
3		2020	AF	5	-	5																										5

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Exhibit P-21, Production Schedule: PB 2016 Air Force															Date: February 2015									
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1										P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)										Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)				

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019											
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
Launch Services																														
	1	2016	AF	5	-	5	-	-	5																				-	
	2	2017	AF	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	2018	AF	4	-	4			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
	3	2019	AF	5	-	5															A -	-	-	-	-	-	-	-	5	
	3	2020	AF	5	-	5																						5		

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Exhibit P-21, Production Schedule: PB 2016 Air Force														Date: February 2015												
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1							P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)														Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)					

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2020														Fiscal Year 2021													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021											
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	
Launch Services																																
	1	2016	AF	5	5	-																							-			
	2	2017	AF	5	5	-																							-			
	3	2018	AF	4	-	4	-	-	-	4																			-			
	3	2019	AF	5	-	5	-	-	-																				-			
	3	2020	AF	5	-	5			A	-																			5			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	

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Exhibit P-21, Production Schedule: PB 2016 Air Force																							Date: February 2015													
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1										P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)										Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)																
Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022															Fiscal Year 2023															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022															Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L					
Launch Services																																				
	1	2016	AF	5	5	-																														
	2	2017	AF	5	5	-																														
	3	2018	AF	4	4	-																														
	3	2019	AF	5	5	-																														
	3	2020	AF	5	-	5	-	-		5																										
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L					

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Exhibit P-21, Production Schedule: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1		P-1 Line Item Number / Title: MSEELV / Evolved Expendable Launch Veh(Space)
		Item Number / Title [DODIC]: - / Evolved Expendable Launch Veh(Space)

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	United Launch Alliance (ULA)/New Entrant - CO/ Various	1	8	10	-	-	-	-	1	3	24	27
2	United Launch Alliance/New Entrant - CO/Various	-	-	-	-	-	-	-	-	-	-	-
3	TBD - TBD	-	-	-	-	-	-	-	-	-	-	-

"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 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:
 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA
 1: Space Programs

P-1 Line Item Number / Title:
 MSSBIR / SBIR High (Space)

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604441F

Line Item MDAP/MAIS Code: 210 **Item MDAP/MAIS Code(s):**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	452.676	-	452.676	412.794	991.938	111.700	102.979	118.299	2,190.386
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (<i>\$ in Millions</i>)	0.000	-	-	452.676	-	452.676	412.794	991.938	111.700	102.979	118.299	2,190.386
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	452.676	-	452.676	412.794	991.938	111.700	102.979	118.299	2,190.386

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

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

Description:

Note 1: As of the FY16 PB submission, space programs satellite procurement funding has be re-categorized from appropriation 3020, Missile Procurement Air Force (MPAF) to appropriation 3021, Space Procurement Air Force (SPAF), in FY16 and beyond. This exhibit will display values in FY16 and beyond. Prior Years, PY, CY will be displayed in the corresponding MPAF/3020 exhibits. Total 3020/3021 procurement funding is \$7,494.947M.

Note 2: This P-40 describes SBIRS funding in PE0305915F. The associated RDT&E funding is in RDT&E, AF PE 0604441F.

Note 3: The flyaway unit cost is not included on the P-40 exhibit because there are multiple P-5 Cost Analysis exhibits.

Description:

SBIRSs primary mission is to provide initial warning of a ballistic missile attack on the 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 payloads in Highly Elliptical 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 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 (RDT&E funded). The GEO-3 and 4 satellite production efforts are necessary to meet constellation requirements. In December 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, and comply with the next assigned Initial Launch Capability (ILC) date of no earlier than April 2016, GEO-3 will be placed into storage. GEO-4 is planned to launch next (GEO flight #3) with GEO-3 remaining in storage and launching GEO-4 directly out of production. GEO-4, now flight #3, will launch upon production completion in 3rd quarter FY16. GEO-3s (flight #4) projected launch window is now not earlier than 4rd quarter FY17.

GEO-5 and 6 satellites are planned as derivatives of the GEO-3 and 4 satellites and will be replacements for GEOs 1 and 2. A three phased contract approach awarded non-recurring engineering and parts obsolescence using advanced procurement funds on 10 Sep 2012, followed by award of long lead items on 19 Feb 2013 and full production on 24 Jun 2014. The full production effort includes 2 satellites, launch vehicle integration, launch and early orbit test, dual band modification (unified S-Band), contractor operations support through operational acceptance, and Interim Contractor Support (ICS).

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs		P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)
ID Code (A=Service Ready, B=Not Service Ready) : A	Program Elements for Code B Items:	Other Related Program Elements: 0604441F
Line Item MDAP/MAIS Code: 210	Item MDAP/MAIS Code(s):	
<p>GEO-5 and 6 are being procured through the Department of Defense Efficient Space Procurement (ESP) approach, which seeks stable production and strategic sub-tier management through the block buy of space vehicles employing fixed-priced contracting. The SBIRS block buy of two satellites enables savings by reducing the effect of obsolescence and production breaks. Additionally, ESP seeks cost efficiencies with the prime and subcontractor team through block buys and a healthy space industrial base.</p> <p>For the GEO 5-6 block buy, the FY13 NDAA authorizes six years of incremental funding and limits the incrementally funded contract obligation to \$3,900M. The years of incremental funding are FY13-18. Advance procurement was appropriated in FY11 and FY12. GEO 5-6 advance procurement and incremental funding are attributed to FY13 for the purposes of identifying full funding for procurement end items. Each year of appropriation FY13-18 is in two parts, the incrementally funded contract amount and annual program support costs. The incrementally funded amount complies with the NDAA cap.</p> <p>SBIRS HEO-3 and 4 payloads are replenishments for HEO-1 and 2 payloads, which were delivered on the SBIRS Engineering and Manufacturing Development (EMD) contract (RDT&E funded). The HEO-1 and 2 payloads are on-orbit and certified for Integrated Tactical Warning/Attack Assessment (ITW/AA) missile warning operations and certified for technical intelligence operations. HEO-3 payload has been delivered to the classified host.</p> <p>To-complete costs are zero for SBIRS GEO 3-4 per the SBIRS Service Cost Position (SCP) dated April 14, 2011. To-complete costs for GEOs 5-6 are based on continuing Program Office support through satellite delivery.</p> <p>Total GEO 3-4 3020/3021 funds are \$2,846.667M. Total GEO 5-6 3020/3021 funds are \$3,499.011M. Total HEO 3-4 3020/3021 funds are \$1,149.269M.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F: Space Procurement, Air Force / BA 01: Space Procurement, Air Force / BSA 1: Space Programs **P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space)

ID Code (A=Service Ready, B=Not Service Ready) : A **Program Elements for Code B Items:** **Other Related Program Elements:** 0604441F

Line Item MDAP/MAIS Code: 210 **Item MDAP/MAIS Code(s):**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / 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)
GEO 3-4	P-5		- / 0.000	- / -	- / -	- / 62.501	- / -	- / 62.501
GEO 5-6	P-5		- / -	- / -	- / -	- / 379.814	- / -	- / 379.814
HEO 3-4	P-5		- / 0.000	- / -	- / -	- / 10.361	- / -	- / 10.361
Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 452.676	- / -	- / 452.676

Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / 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)
GEO 3-4	P-5		- / 96.724	- / 27.912	- / -	- / -	- / -	- / 187.137
GEO 5-6	P-5		- / 295.359	- / 956.484	- / 111.700	- / 102.979	- / 118.299	- / 1,964.635
HEO 3-4	P-5		- / 20.711	- / 7.542	- / -	- / -	- / -	- / 38.614
Total Gross/Weapon System Cost			- / 412.794	- / 991.938	- / 111.700	- / 102.979	- / 118.299	- / 2,190.386

*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 add due to rounding.

Justification:

FY16 funding provides for continued procurement of the GEO-5 and 6 satellites, and launch and checkout activities for GEO 3/4 and HEO 3/4; continues Program Office and related support activities to include Systems Engineering and Technical Assistance (SETA) for technical analysis and verification of contractor performance; and continues enterprise Systems Engineering and Integration (SE&I) which provides intra- and inter-program requirements development, enterprise master planning, validation and verification, specialty engineering, and architecture development.

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Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1	P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)	Item Number / Title [DODIC]: - / GEO 3-4
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	-	-	62.501	-	62.501	96.724	27.912	-	-	-	187.137
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	0.000	-	-	62.501	-	62.501	96.724	27.912	-	-	-	187.137
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	62.501	-	62.501	96.724	27.912	-	-	-	187.137

(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 add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 3-4 Cost																		
Recurring Cost																		
GEO 3-4 Hardware	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Integration and Assembly	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	-	-	-	-	-	-	-	-	-	10.768	-	-	-	-	-	10.768
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>10.768</i>	-	-	-	-	-	<i>10.768</i>
Non Recurring Cost																		
GEO 3-4 Obsolescence Non-Recurring	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Launch Vehicle and Range Integration	-	-	-	-	-	-	-	-	-	-	-	8.317	-	-	-	-	-	8.317
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>8.317</i>	-	-	-	-	-	<i>8.317</i>
<i>Subtotal: Space Vehicle - GEO 3-4 Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>19.085</i>	-	-	-	-	-	<i>19.085</i>
Checkout and Launch - GEO 3-4 Cost																		
GEO 3-4 Launch Ops & Checkout	-	-	-	-	-	-	-	-	-	-	-	20.963	-	-	-	-	-	20.963
Interim Contractor Support (ICS)	-	-	-	-	-	-	-	-	-	-	-	22.000	-	-	-	-	-	22.000

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)						Item Number / Title [DODIC]: - / GEO 3-4					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Checkout and Launch - GEO 3-4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	42.963	-	-	-	-	-	42.963
Support - GEO 3-4 Cost																		
GEO 3-4 Other Support	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 FFRDC	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Advisory and Assistance Services (A&AS) (PMA)	-	-	-	-	-	-	-	-	-	-	-	0.453	-	-	-	-	-	0.453
GEO 3-4 Program Support (PMA: Travel, Supplies, etc.)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - GEO 3-4 Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	0.453	-	-	-	-	-	0.453
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	62.501	-	-	-	-	-	62.501

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Space Vehicle - GEO 3-4 Cost																		
Recurring Cost																		
GEO 3-4 Hardware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Integration and Assembly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.768
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.768
Non Recurring Cost																		
GEO 3-4 Obsolescence Non-Recurring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Launch Vehicle and Range Integration	-	-	7.178	-	-	1.126	-	-	-	-	-	-	-	-	-	-	-	16.621
<i>Subtotal: Non Recurring Cost</i>	-	-	7.178	-	-	1.126	-	-	-	-	-	-	-	-	-	-	-	16.621
<i>Subtotal: Space Vehicle - GEO 3-4 Cost</i>	-	-	7.178	-	-	1.126	-	-	-	-	-	-	-	-	-	-	-	27.389

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Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)						Item Number / Title [DODIC]: - / GEO 3-4					

ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							
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Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Checkout and Launch - GEO 3-4 Cost																		
GEO 3-4 Launch Ops & Checkout	-	-	89.546	-	-	26.786	-	-	-	-	-	-	-	-	-	-	-	137.295
Interim Contractor Support (ICS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.000
<i>Subtotal: Checkout and Launch - GEO 3-4 Cost</i>	-	-	89.546	-	-	26.786	-	-	-	-	-	-	-	-	-	-	-	159.295
Support - GEO 3-4 Cost																		
GEO 3-4 Other Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 FFRDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GEO 3-4 Advisory and Assistance Services (A&AS) (PMA)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.453
GEO 3-4 Program Support (PMA: Travel, Supplies, etc.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - GEO 3-4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.453
Gross/Weapon System Cost	-	-	96.724	-	-	27.912	-	-	-	-	-	-	-	-	-	-	-	187.137

Remarks:
Total GEO 3-4 3020/3021 funds are \$2,846.667M

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force										Date: February 2015			
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1					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) :							MDAP/MAIS Code:					
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Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	379.814	-	379.814	295.359	956.484	111.700	102.979	118.299	1,964.635
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	-	-	-	379.814	-	379.814	295.359	956.484	111.700	102.979	118.299	1,964.635
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	379.814	-	379.814	295.359	956.484	111.700	102.979	118.299	1,964.635

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

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

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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	-	-	-	-	-	-	-	-	-	-	-	228.712	-	-	-	-	-	228.712
GEO 5-6 Integration and Assembly	-	-	-	-	-	-	-	-	-	-	-	46.308	-	-	-	-	-	46.308
GEO 5-6 Enterprise Systems Engineering & Integration (SE&I)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	275.020	-	-	-	-	-	275.020
Non Recurring Cost																		
GEO 5-6 Obsolescence Non-Recurring	-	-	-	-	-	-	-	-	-	-	-	25.508	-	-	-	-	-	25.508
GEO 5-6 Launch Vehicle and Range Integration	-	-	-	-	-	-	-	-	-	-	-	11.922	-	-	-	-	-	11.922
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	37.430	-	-	-	-	-	37.430
<i>Subtotal: Space Vehicle - GEO 5-6 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	312.450	-	-	-	-	-	312.450
Checkout and Launch - GEO 5-6 Cost																		
GEO 5-6 Launch Ops & Checkout	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interim Contractor Support (ICS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						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) :										MDAP/MAIS Code:							
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Checkout and Launch - GEO 5-6 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - GEO 5-6 Cost																		
GEO 5-6 Other Support	-	-	-	-	-	-	-	-	-	-	-	8.124	-	-	-	-	-	8.124
GEO 5-6 FFRDC	-	-	-	-	-	-	-	-	-	-	-	33.966	-	-	-	-	-	33.966
GEO 5-6 Advisory and Assistance Services (A&AS) (PMA)	-	-	-	-	-	-	-	-	-	-	-	22.981	-	-	-	-	-	22.981
GEO 5-6 Program Support (PMA: Travel, Supplies, etc.)	-	-	-	-	-	-	-	-	-	-	-	2.293	-	-	-	-	-	2.293
<i>Subtotal: Support - GEO 5-6 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	67.364	-	-	-	-	-	67.364
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	379.814	-	-	-	-	-	379.814

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Space Vehicle - GEO 5-6 Cost																		
Recurring Cost																		
GEO 5-6 Hardware	-	-	126.916	-	-	159.482	-	-	-	-	-	-	-	-	-	-	-	515.110
GEO 5-6 Integration and Assembly	-	-	37.954	-	-	294.262	-	-	-	-	-	-	-	-	-	-	-	378.524
GEO 5-6 Enterprise Systems Engineering & Integration (SE&I)	-	-	15.462	-	-	19.970	-	-	21.718	-	-	22.478	-	-	23.264	-	-	102.892
<i>Subtotal: Recurring Cost</i>	-	-	180.332	-	-	473.714	-	-	21.718	-	-	22.478	-	-	23.264	-	-	996.526
Non Recurring Cost																		
GEO 5-6 Obsolescence Non-Recurring	-	-	13.235	-	-	4.712	-	-	-	-	-	-	-	-	-	-	-	43.455
GEO 5-6 Launch Vehicle and Range Integration	-	-	10.168	-	-	37.001	-	-	1.673	-	-	5.750	-	-	5.080	-	-	71.594
<i>Subtotal: Non Recurring Cost</i>	-	-	23.403	-	-	41.713	-	-	1.673	-	-	5.750	-	-	5.080	-	-	115.049
<i>Subtotal: Space Vehicle - GEO 5-6 Cost</i>	-	-	203.735	-	-	515.427	-	-	23.391	-	-	28.228	-	-	28.344	-	-	1,111.575

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Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						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) :										MDAP/MAIS Code:							
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Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Checkout and Launch - GEO 5-6 Cost																		
GEO 5-6 Launch Ops & Checkout	-	-	3.271	-	-	287.314	-	-	-	-	-	-	-	-	-	-	-	290.585
Interim Contractor Support (ICS)	-	-	22.000	-	-	74.500	-	-	-	-	-	-	-	-	-	-	-	96.500
<i>Subtotal: Checkout and Launch - GEO 5-6 Cost</i>	-	-	25.271	-	-	361.814	-	-	-	-	-	-	-	-	-	-	-	387.085
Support - GEO 5-6 Cost																		
GEO 5-6 Other Support	-	-	8.408	-	-	8.702	-	-	4.468	-	-	4.372	-	-	4.479	-	-	38.553
GEO 5-6 FFRDC	-	-	32.893	-	-	41.654	-	-	49.966	-	-	45.138	-	-	51.697	-	-	255.314
GEO 5-6 Advisory and Assistance Services (A&AS) (PMA)	-	-	22.619	-	-	26.212	-	-	29.582	-	-	20.804	-	-	29.184	-	-	151.382
GEO 5-6 Program Support (PMA: Travel, Supplies, etc.)	-	-	2.433	-	-	2.675	-	-	4.293	-	-	4.437	-	-	4.595	-	-	20.726
<i>Subtotal: Support - GEO 5-6 Cost</i>	-	-	66.353	-	-	79.243	-	-	88.309	-	-	74.751	-	-	89.955	-	-	465.975
Gross/Weapon System Cost	-	-	295.359	-	-	956.484	-	-	111.700	-	-	102.979	-	-	118.299	-	-	1,964.635

Remarks:

The incrementally funded amount includes the above Total Space Vehicle Cost (less: SE&I and Launch Vehicle & Range Integration), Launch Ops & Checkout Cost, and Interim Contractor Support through transition to sustainment. Total incrementally funded amount of \$2,756.1M complies with FY13 NDAA limiting procurement cost to \$3,900M.

The FY13 gross weapon system cost includes advance procurement amount of \$243.314M appropriated in FY11 and \$243.500M appropriated in FY12.

Total GEO 5-6 3020/3021 funds are \$3,499.011M

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space) **Item Number / Title [DODIC]:** - / HEO 3-4

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

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	-	-	10.361	-	10.361	20.711	7.542	-	-	-	38.614
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	0.000	-	-	10.361	-	10.361	20.711	7.542	-	-	-	38.614
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	10.361	-	10.361	20.711	7.542	-	-	-	38.614

(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 add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 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 - HEO 3-4 Cost																		
Recurring Cost																		
HEO 3-4 Hardware	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Integration and Assembly	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
HEO 3-4 Obsolescence Non-Recurring	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Launch Vehicle and Range Integration	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - HEO 3-4 Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Checkout and Launch - HEO 3-4 Cost																		
HEO Host Accommodation	-	-	-	-	-	-	-	-	-	-	-	2.928	-	-	-	-	-	2.928
HEO 3-4 Launch Ops & Checkout	-	-	-	-	-	-	-	-	-	-	-	7.433	-	-	-	-	-	7.433

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force												Date: February 2015					
Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1						P-1 Line Item Number / Title: MSSBIR / SBIR High (Space)						Item Number / Title [DODIC]: - / HEO 3-4					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							

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

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Checkout and Launch - HEO 3-4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	10.361	-	-	-	-	-	10.361
Support - HEO 3-4 Cost																		
HEO 3-4 Other Support	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 FFRDC	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Advisory and Assistance Services (A&AS) (PMA)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Program Support (PMA: Travel, Supplies, etc.)	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - HEO 3-4 Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	10.361	-	-	-	-	-	10.361

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Space Vehicle - HEO 3-4 Cost																		
Recurring Cost																		
HEO 3-4 Hardware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Integration and Assembly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Enterprise Systems Engineering & Integration (SE&I)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
HEO 3-4 Obsolescence Non-Recurring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Launch Vehicle and Range Integration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Space Vehicle - HEO 3-4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2016 Air Force **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: 3021F / 01 / 1 **P-1 Line Item Number / Title:** MSSBIR / SBIR High (Space) **Item Number / Title [DODIC]:** - / HEO 3-4

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

Cost Elements	FY 2017			FY 2018			FY 2019			FY 2020			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)
Checkout and Launch - HEO 3-4 Cost																		
HEO Host Accommodation	-	-	2.991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.919
HEO 3-4 Launch Ops & Checkout	-	-	17.720	-	-	7.542	-	-	-	-	-	-	-	-	-	-	-	32.695
<i>Subtotal: Checkout and Launch - HEO 3-4 Cost</i>	-	-	20.711	-	-	7.542	-	-	-	-	-	-	-	-	-	-	-	38.614
Support - HEO 3-4 Cost																		
HEO 3-4 Other Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 FFRDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Advisory and Assistance Services (A&AS) (PMA)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEO 3-4 Program Support (PMA: Travel, Supplies, etc.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - HEO 3-4 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	20.711	-	-	7.542	-	-	-	-	-	-	-	-	-	-	-	38.614

Remarks:
Total HEO 3-4 3020/3021 funds are \$1,149.269M.