Modernized Selected Acquisition Report (MSAR)

Global Positioning System III Follow-On Production (GPS IIIF)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

Table of Contents

Common DoD Abbreviations	3
Program Description	5
Responsible Office	7
Executive Summary	8
Schedule	10
Performance	11
Acquisition Budget Estimate	16
Unit Costs	18
Life-Cycle Costs	20
Performing Activities and Contracts	23
Deliveries and Expenditures	25
International Program Aspects	26

(U) Common DoD Abbreviations

$B	Billions of Dollars
$K	Thousands of Dollars
$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description

Full Name
Global Positioning System III Follow-On Production

PNO
590

Lead Component
Department of the Air Force (Space Acquisition)

Joint Program
No

Adaptive Acquisition Pathway
Major Capability Acquisition

Acquisition Category
IB

Acquisition Status
Active Acquisition

Short Name
GPS IIIF

Milestone Decision Authority
Component Acquisition Executive

Program Executive Office
PEO Space Military Communications and Positioning, Navigation, and Timing

Acquisition Type
Major Defense Acquisition Program

Acquired Systems
GPS IIIF

Mission
The Global Positioning System (GPS) is a satellite-based radio navigation system that provides worldwide military and civil users satellite signals that they can process to determine accurate position, velocity, and time. GPS III Follow-On (GPS IIIF) is an Acquisition Category IB program that, in concert with the GPS III program, comprises the next generation of space vehicles (SVs) that provide significant enhancements to modernize the constellation originally delivered under the Navstar GPS program. GPS IIIF, will deliver GPS III satellites beyond the first ten SVs being delivered by the GPS III program.
The primary GPS IIIF missions are worldwide positioning, navigation, and precise time transfer. GPS provides strategic and tactical support to the following DoD missions: Joint Operations by providing capabilities for Position, Navigation and Timing (PNT); Command, Control, Communications, and Intelligence; Special Operations; Military Operations in Urban Terrain; Defense-Wide Mission Support; Air Mobility; and Space Launch Orbital Support.
The GPS IIIF satellites will maintain the same capabilities as the GPS III satellites, but will also deliver significant enhancements to include: Regional Military Protection (RMP) capabilities that provide the ability to deliver high-power regional M-Code signals in specific areas of intended effect, Unified S-Band (USB) interface compliance, and integration of hosted payloads (redesigned Nuclear Detonation Detection System (NDS), Laser Retro-reflector Arrays (LRAs), Search and Rescue/GPS (SAR/GPS), Energetic Charged Particles (ECP) sensor) Consistent with the GPS III programs support for military users, the GPS IIIF program provides Precise Positioning Service (PPS) to military operations and force enhancement. It also provides increased anti-jam power to the earth coverage Military code signals and anti-exploitation techniques in order to prevent unauthorized use of the GPS PPS signal. In addition, the program will support the U.S. Nuclear Detonation Detection System mission for worldwide monitoring

and detection of nuclear events, as well as the international Cospas-Sarsat Search and Rescue mission for detection and location of emergency beacons, both via a hosted payloads.
The GPS IIIF program provides a Standard Positioning Service to a broad spectrum of civil users which will include the four civil signals (L1 C/A, L1C, L2C, and L5) flown on GPS III satellites. The L1C signal is compatible with the European Galileo satellite navigation system signal, E1. L1C is also compatible with those signals planned for broadcast on Japan's Quazi-Zenith Satellite System, a system meant to augment GPS services. This common civil signal will be jointly broadcast by up to 60 satellites from both GPS and Galileo constellations, further increasing the accuracy and availability of user PNT solutions. The program also benefits the civil community by hosting laser retroreflectors, used to refine the International Terrestrial Reference Frame, and particle sensors, used for space-based environmental monitoring.
The GPS IIIF SVs build upon the GPS III program's approach to rapidly and affordably respond to warfighter capability requirements. The GPS IIIF program will also execute Space Modernization Initiative (SMI) efforts that focus on space vehicle affordability, capability and addresses future requirements and resiliency needs. The Air Force is using its research laboratories to mature mission related capabilities, technologies (advanced clocks, amplifiers, crosslinks, etc.), and inform future PNT architectures.

(U) Responsible Office

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(U) Executive Summary

Program Highlights Since Last Report

The GPS IIIF program is on track to meet schedule and performance objectives, but with continued risks to the program since the last SAR. There have been impacts to cost and schedule due to manufacturing, hardware, and delivery delays. There also have been manpower and supply chain issues due to inflation and industry impacts that have increased pressure on cost and schedule performance. While the schedule has degraded, the APB dates are not at risk of deviation.

Space Vehicle (SV) Support Equipment, Payload Mission Data Unit (MDU), Payload Transmitters, and BUS Electrical Power Subsystem are experiencing technical issues and staffing challenges. The program responsibility for the financial overruns is limited as a majority of the RDT&E and Procurement Contract Line Item Numbers are Fixed Price Incentive Fee with a share ratio of 75 (Government)/25 (Lockheed Martin (LM)).

Currently, ten GPS IIIF SVs (11-20) are ordered and proceeding as planned. In FY 2024, the Department of the Air Force re-phased the previously planned two SVs procurement to right size the buy profile to now end procurement in FY2030. Per GPS IIIF contract, the "no buy" year in FY 2024 allows the prime contractor to submit a Request for Equitable Adjustment (REA), but it may only be applied towards the order for the next fiscal year in which the Government places an order. If the prime contractor chooses to submit a REA, it will be no earlier than FY 2025, with the amount still to be negotiated.

In accordance with 10 U.S.C. 4214 and Department of the Air Force Pamphlet 63-128 para 13.8, the GPS IIIF program provided a formal notification to the MDA of a cost deviation to the O&S cost threshold documented in the programs Milestone C APB, dated July 14, 2020. The January 8, 2024 PEO-approved Single Best Estimate reflects O&S costs of $923.5M (CY 2020), exceeding the Milestone C APB threshold of $841.5M (CY 2020) previously established with the June 2020 SCP. The two additional years of full Operations and Maintenance growth (FY 2050-2051) are due to the Air Force decision to modify the SV buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, On-Orbit Support extends two additional years along with two additional years of O&S costs. Due to the Department of the Air Force's decision to modify the planned GPS IIIF buy profile, the Program Manager recommended the MDA approve the GPS IIIF program to proceed without update to the existing APB. This is in alignment with standard Air Force business practices related to O&S deviations.

Significant Accomplishments:

In calendar year 2023, GPS IIIF Program completed the GPS Non-flight Satellite Testbed + (GNST +) final assembly. GNST+ Initial Power Turn On occurred on July 19, 2023, with completion of Script Validation #1 on December 8, 2023. This was the first time the 126 automated test scripts were run with the new Electrical Ground Support Equipment. This completion marked a significant risk reduction event for the program by validating executability of the test scripts ahead of testing on the first flight vehicle, SV11.

The Linearized Traveling Wave Tube Amplifier Preliminary Design Review (PDR) for SV15+ was completed on July 24, 2023 and the Information Assurance PDR with the National Security Agency successfully concluded on July 28, 2023.

The Mission Data Unit 1.0 Software Acceptance Review was completed in May 2023, with zero defects found against Flight Software v1.0. MDU Flight Software (FSW) v1.1 was awarded to LM via contract modification (P00130) on August 24, 2023. This modification aligned the contract baselines of GPS IIIF SV and OCX 3F. Additionally, GPS IIIF/OCX 3F negotiations with LM and L3Harris to resolve the FSW data rights issue concluded. A FSW agreement was signed by all parties, then reviewed and approved by the Department of Justice on September 13, 2023. A GPS IIIF contract modification (P00134), to incorporate the signed license was issued on September 15, 2023. Subsequently, the Government received source code data on September 28, 2023, and this code was provided to OCX 3F on October 5, 2023.

Defense Cost and Resource Center Cost and Software Data Reporting Compliance Rating: Red

NOTE: This Program's Executive Summary contains Controlled Unclassified Information (CUI) and has been removed per the Implementation Plan for the DoD's Modernized Selected Acquisition Report Process, dated June 2023, which required the SAR be submitted without any designation relation to dissemination control.

There are no significant software-related issues with this program at this time.

(U) History of Significant Developments Since Program Inception

Date	Description
September 2018	The GPS IIIF program obtained Milestone B certification and APB approval on September 12, 2018.
September 2018	GPS IIIF awarded a competitively-procured contract on September 26, 2018 to Lockheed Martin Space. The Fixed Price Incentive/Award Fee contract includes non-recurring engineering, satellite simulators, and SV 11-12.
March 2019	The program completed the initial Integrated Baseline Review for the scope awarded in September 2018.
March 2019	GPS IIIF initiated the Critical Design Review (CDR) campaign for the baseline technical design.
November 2019	Successfully held the Navigation Payload Element CDR.
March 2020	GPS IIIF CDR completed.
July 2020	GPS IIIF Milestone C certification and updated APB approval.
October 2020	Contract modified to add SV 13 and 14 procurement.
August 2021	Enterprise Test and Evaluation Master Plan Revision C received OSD Director, Operational Test and Evaluation approval.
October 2021	Contract modified to add Procurement SVs 15, 16, and 17.
October 2022	Contract modified to add Procurement SVs 18, 19, and 20.
September 2023	Contract modification (P00134) to incorporate the Flight Software signed license was issued on September 15, 2023.

(U) Schedule

(U) Schedule Events

Events		Production APB (Milestone) 7/14/2020 Objective	Production APB (Current) 7/14/2020 Objective / Threshold		Current Estimate 12/31/2023	Actual
GPS IIIF Milestone B	MS B	Sept 2018	Sept 2018	Sept 2018	-	12 Sept 2018
GPS IIIF Critical Design Review	CDR	Mar 2020	Mar 2020	Mar 2020	-	2 Mar 2020
GPS IIIF Milestone C	MS C	Dec 2020	Dec 2020	Jun 2021	-	1 Jun 2021
GPS IIIF SV11 AFL	Other	Jan 2028	Jan 2028	Jul 2028	Nov 2026	-
GPS IIIF SV12 AFL	Other	Oct 2028	Oct 2028	Apr 2029	Apr 2027	-
GPS IIIF SV13 AFL	Other	Oct 2029	Oct 2029	Apr 2030	Mar 2028	-
GPS IIIF SV16 AFL	Other	Oct 2030	Oct 2030	Apr 2031	Jun 2029	-
GPS IIIF SV22 AFL	Other	Oct 2032	Oct 2032	Apr 2033	Oct 2032	-

Notes

1. Due to continuing issues with the Mission Data Unit, Linearized Traveling Wave Tube Amplifier, Payload Transmitters, and BUS Electrical Power Subsystem, AFL for SV 11, 12, 13 and 16 slipped during this reporting period: SV 11 AFL went from February to November 2026, SV 12 AFL went from June 2026 to April 2027, SV 13 AFL went from August 2026 to March 2028, and SV 16 AFL went from February 2028 to June 2029.

Schedule Baseline Deviation Explanation

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

None

(U) Performance

(U) Performance Attributes

Availability of Position Accuracy (5.2.2)		KPP
Current Estimate 12/31/2023		The GPS III Follow-on SVs and Control Segment shall provide Availability of Accuracy in the terrestrial service volume with UE as described in Section 5 [of the GPS IIIF CDD].
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	The GPS III Follow-on SVs and Control Segment shall provide Availability of Accuracy in the terrestrial service volume with UE as described in Section 5 [of the GPS IIIF CDD]
	Threshold	The GPS III Follow-on SVs and Control Segment shall provide Availability of Accuracy in the terrestrial service volume with UE as described in Section 5 [of the GPS IIIF CDD]
Production APB (Milestone) 7/14/2020	Objective	The GPS III Follow-on SVs and Control Segment shall provide Availability of Accuracy in the terrestrial service volume with UE as described in Section 5 [of the GPS IIIF CDD]
Availability of Time Transfer Accuracy (5.2.5)		**KPP**
Current Estimate 12/31/2023		The GPS lll Follow-on satellites and Control Segment shall provide Availability of Dynamic and Static Time Transfer Accuracy with UE described in Section 5 [of the GPS IIIF CDD].
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	The GPS lll Follow-on satellites and Control Segment shall provide Availability of Dynamic and Static Time Transfer Accuracy with UE described in Section 5 [of the GPS IIIF CDD].
	Threshold	The GPS lll Follow-on satellites and Control Segment shall provide Availability of Dynamic and Static Time Transfer Accuracy with UE described in Section 5 [of the GPS IIIF CDD].
Production APB (Milestone) 7/14/2020	Objective	The GPS lll Follow-on satellites and Control Segment shall provide Availability of Dynamic and Static Time Transfer Accuracy with UE described in Section 5 [of the GPS IIIF CDD].
Backward Compatibility (5.2.1)		**KPP**
Current Estimate 12/31/2023		All modifications made to the existing GPS Space Segment and Control Segment shall allow continued operation of existing IS-GPS-200, IS-GPS-700, IS-GPS-705, IS-GPS-800, and SS-GPS-001 compliant UE and continued operation of legacy receivers (to include Federal augmentation system receivers) IAW performance meeting the Acquisition Program

		Baseline, Precise Positioning Service Performance Standard and GPS Standard Positioning Service Performance Standard, and Federal augmentation system specifications for the Local Area Augmentation System, Wide Area Augmentation System, Nationwide Differential GPS, and Maritime Differential GPS.
Demonstrated Performance -		TBD
Production APB **(Current)**	**Objective**	All modifications made to the existing GPS Space Segment and Control Segment shall allow continued operation of existing IS-GPS-200, IS-GPS-700, IS-GPS-705, IS-GPS-800, and SS-GPS-001 compliant UE and continued operation of legacy receivers (to include Federal augmentation system receivers) IAW performance meeting the Acquisition Program Baseline, Precise Positioning Service Performance Standard and GPS Standard Positioning Service Performance Standard, and Federal augmentation system specifications for the Local Area Augmentation System, Wide Area Augmentation System, Nationwide Differential GPS, and Maritime Differential GPS
7/14/2020	**Threshold**	All modifications made to the existing GPS Space Segment and Control Segment shall allow continued operation of existing IS-GPS-200, IS-GPS-700, IS-GPS-705, IS-GPS-800, and SS-GPS-001 compliant UE and continued operation of legacy receivers (to include Federal augmentation system receivers) IAW performance meeting the Acquisition Program Baseline, Precise Positioning Service Performance Standard and GPS Standard Positioning Service Performance Standard, and Federal augmentation system specifications for the Local Area Augmentation System, Wide Area Augmentation System, Nationwide Differential GPS, and Maritime Differential GPS
Production APB **(Milestone)** **7/14/2020**	**Objective**	All modifications made to the existing GPS Space Segment and Control Segment shall allow continued operation of existing IS-GPS-200, IS-GPS-700, IS-GPS-705, IS-GPS-800, and SS-GPS-001 compliant UE and continued operation of legacy receivers (to include Federal augmentation system receivers) IAW performance meeting the Acquisition Program Baseline, Precise Positioning Service Performance Standard and GPS Standard Positioning Service Performance Standard, and Federal augmentation system specifications for the Local Area Augmentation System, Wide Area Augmentation System, Nationwide Differential GPS, and Maritime Differential GPS
Position and Time Transfer Integrity (5.2.4)		**KPP**
Current Estimate **12/31/2023**		The GPS III Follow-on satellite shall not transmit MSI to the user with a probability greater than 0.0001 per hour.
Demonstrated Performance -		TBD
Production APB **(Current)**	**Objective**	The GPS III Follow-on satellite shall not transmit MSI to the user with a probability greater than 0.0001 per hour

7/14/2020	Threshold	The GPS III Follow-on satellite shall not transmit MSI to the user with a probability greater than 0.0001 per hour
Production APB (Milestone) 7/14/2020	Objective	The GPS III Follow-on satellite shall not transmit MSI to the user with a probability greater than 0.0001 per hour
Regional Military Protection (5.2.3)		KPP
Current Estimate 12/31/2023		Each GPS III Follow-On satellite shall provide a -140 dBW (measured at a 5-degree minimum user elevation mask angle) regional high-power M-Code signal on both L1 and L2.
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	Each GPS III Follow-On satellite shall provide a -140 dBW (measured at a 5-degree minimum user elevation mask angle) regional high-power M-Code signal on both L1 and L2
	Threshold	Each GPS III Follow-On satellite shall provide a -140 dBW (measured at a 5-degree minimum user elevation mask angle) regional high-power M-Code signal on both L1 and L2
Production APB (Milestone) 7/14/2020	Objective	Each GPS III Follow-On satellite shall provide a -140 dBW (measured at a 5-degree minimum user elevation mask angle) regional high-power M-Code signal on both L1 and L2
Satellite Availability (2)		APA
Current Estimate 12/31/2023		-
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	0.984
	Threshold	0.984
Production APB (Milestone) 7/14/2020	Objective	0.984
Sustainment Materiel Availability (5.1.4.2)		KPP
Current Estimate 12/31/2023		Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP.
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
	Threshold	Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
Production APB	Objective	Achievement of the Availability of Position Accuracy

(Milestone) 7/14/2020		KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
Sustainment Operational Availability (5.1.4.1)		**KPP**
Current Estimate 12/31/2023		Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP.
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
	Threshold	Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
Production APB (Milestone) 7/14/2020	Objective	Achievement of the Availability of Position Accuracy KPP and Time Transfer Accuracy KPP thresholds satisfies this KPP
System Survivability (5.1.2)		**KPP**
Current Estimate 12/31/2023		The System Survivability KPP is satisfied by meeting the thresholds of the Availability of Position Accuracy KPP; Position and Time Transfer Integrity KPP; Availability of Time Transfer Accuracy KPP; System Survivability System KPP and associated Cyber Survivability Attributes.
Demonstrated Performance -		TBD
Production APB (Current) 7/14/2020	Objective	The System Survivability KPP is satisfied by meeting the thresholds of the Availability of Position Accuracy KPP; Position and Time Transfer Integrity KPP; Availability of Time Transfer Accuracy KPP; System Survivability System KPP and associated Cyber Survivability Attributes
	Threshold	The System Survivability KPP is satisfied by meeting the thresholds of the Availability of Position Accuracy KPP; Position and Time Transfer Integrity KPP; Availability of Time Transfer Accuracy KPP; System Survivability System KPP and associated Cyber Survivability Attributes
Production APB (Milestone) 7/14/2020	Objective	The System Survivability KPP is satisfied by meeting the thresholds of the Availability of Position Accuracy KPP; Position and Time Transfer Integrity KPP; Availability of Time Transfer Accuracy KPP; System Survivability System KPP and associated Cyber Survivability Attributes
User Range Error (meters)		**APA**
Current Estimate 12/31/2023		.2
Demonstrated Performance -		TBD

Production APB (Current) **7/14/2020**	**Objective**	.2
	Threshold	.2
Production APB (Milestone) **7/14/2020**	**Objective**	.2

(U) Requirement Source:
Sponsor(s): United States Air Force; United States Space Force

1. Capability Development Document*, GPS IIIF CDD*
   Validated By: Air Force Requirements Oversight Council, March 20, 2018
2. Capability Development Document*, GPS III CDD*
   Validated By: Air Force Requirements Oversight Council, February 7, 2011

Notes

None

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category ($M) Base Year: 2020	Production APB (Milestone) 7/14/2020 CY$ obs Objective	Production APB (Current) 7/14/2020 CY$ obs Objective	Production APB (Current) 7/14/2020 CY$ obs Threshold	Current Estimate PB 2025 CY$ obs	Current Estimate PB 2025 TY$ obs
RDT&E	3,175.6	3,175.6	3,493.2	2,983.5	3,438.1
Procurement	6,214.0	6,214.0	6,835.4	5,743.2	7,371.7
Total Acquisition	9,389.6	9,389.6	-	8,726.6	10,809.8
Program Acquisition Unit Cost	426.800	426.800	469.480	396.666	491.354
Average Procurement Unit Cost	310.700	310.700	341.770	287.158	368.586
Program End-Item Quantity					
Development	2	2		2	
Procurement	20	20		20	
O&M-Acquired	-	-		0	

Budget Notes

None

Quantity Notes

None

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)
None
Current Baseline Risks (7/14/2020)
None
Original Baseline Risks (9/12/2018)

(1) Total Acquisition Cost - $9,273.8 (Qty 22) PAUC - $421.536 (Qty 22); APUC - $305.65 (Qty 20). SCP was conducted at contract ceiling price; Non-Recurring Engineering (NRE) SV11-12 and simulators are Fixed Price Incentive Fee/ Award Fee (FPIF/AF), SV13-32 are FPIF. This approach is intended to control cost in a manner consistent with the relative maturity of the requirements and technical baseline, production designs, and their associated execution risk.
(2) Milestone B APB (BY 2018 $M): Total Acquisition Cost - $9,273.8 (Qty 22) PAUC - $421.536 (Qty 22); APUC - $305.65 (Qty 20). SCP conducted at contract ceiling price; NRE SV11-12 and simulators are FPIF/AF, SV13-32 are FPIF. This approach is intended to control cost in a manner consistent with the relative maturity of the requirements and technical baseline, production designs, and their associated execution risk.

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY$M) Base Year: 2020	Current Baseline 07/14/2020	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	9,389.6	8,726.6	
Program Quantity	22	22	
PAUC	426.800	396.666	-7.06%
Average Procurement Unit Cost			
Procurement Cost	6,214.0	5,743.2	
Procurement Quantity	20	20	
APUC	310.700	287.158	-7.58%

(U) Current Estimate Compared with Original Baseline

Category (CY$M) Base Year: 2018	Original Baseline 09/12/2018	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	9,273.8	8,454.2	
Program Quantity	22	22	
PAUC	421.536	384.280	-8.84%
Average Procurement Unit Cost			
Procurement Cost	6,113.0	5,563.8	
Procurement Quantity	20	20	
APUC	305.650	278.192	-8.98%

The Current Estimate's constant-year dollars have been converted from Base Year 2020 to Base Year 2018 using the National Defense Budget Estimates for FY 2024 (Green Book).

(U) Cost Growth Details

Impacts of Schedule Changes on Unit Cost

Not Applicable.

Impacts of Performance Changes on Unit Cost

Not Applicable.

Actions taken or Proposed to Control Future Cost Growth

Not Applicable.

Status of Each Major Contract and Significant Factors Contributing to Cost and Schedule Variance; Projected Effects on Future Program Costs

See Contracts section.

Notes

None

(U) Life-Cycle Costs

(U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category ($M) Base Year: 2020	Production APB (Milestone) 7/14/2020 CY$ obs Objective	Production APB (Current) 7/14/2020 CY$ obs Objective / Threshold		Current Estimate CY$ obs / TY$ obs	
Total O&S	765.0	765.0	841.5	921.2*	1,547.4
Total Disposal	-	-	-	-	-

* Baseline Deviation

(U) Current Cost Estimate Sources

Operating and Support Cost
Type: Other
Approved by: PEO, January 08, 2024

Disposal/Demilitarization Cost
Type: Other
Approved by: PEO, January 08, 2024

Operating and Support Baseline Deviation Explanation

Deviation explanation not provided.

Cost Notes

The GPS IIIF system will consist of the OSS, the GPS IIIF Simulators (GSS+1 and GSS+2), and the GPS IIIF Software Sustainment Labs. This effort is for on-site organizational engineering and related activities necessary to support GPS IIIF on-orbit operations. Contractor is co-located with 2nd space Operations Squadron personnel at Schriever Air Force Base. Efforts include maintaining engineering liaison support and documenting and reporting on anomalies resolution and cyber-resiliency.

Sustainment Strategy
The On-Orbit Support Contract shall be responsible for maintenance and operation of the GPS IIIF Simulators, once accepted by the Government via DD250, and will be responsible for the maintenance and operation of a GPS IIIF Operational Support System (OSS). Additionally, the On-Orbit Support Contract will provide on-orbit support for the GPS IIIF Space Vehicles (SVs) after Satellite Control Authority transfer to the 2nd Space Operations Squadron (2 SOPS). Once all GPS IIIF SVs have been launched and transferred over to 2 SOPS, the On-Orbit Support Contract will take responsibility for flight software modifications and lab equipment.

O&S and Disposal Cost Sources: For Programs with an O&S Cost estimate or Disposal Cost estimate the O&S Cost Source and Disposal Cost Source listed in the MSAR are inaccurate due to a

system limitation. See MSAR Supplement for corrected source(s).

(U) Operating and Support Variance with Prior Estimate

(CY$M) Base Year: 2020	Estimate	
Prior Estimate (12/31/2022)	690.0	
Current Estimate	921.2	
Category	**Variance**	**Explanation**
Unit-Level Manpower	138.0	The predominant cause is the Air Force's decision to modify the SV buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, O&S activities and costs will also extend two additional years. Cost previously captured in other Cost Element Structure (CES) uniquely identified since 2020 and moved to the most appropriate CES.
Unit Operations	0.0	
Maintenance	12.6	The predominant cause is the Air Force's decision to modify the SV buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, O&S, extends two additional years along with two additional years of O&S costs. Portion of requirements moved to CES 1.0.
Sustaining Support	79.6	The predominant cause is the Air Force's decision to modify the SV buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, O&S, extends two additional years along with two additional years of O&S costs. Portion of requirements moved to CES 1.0.
Continuing System Improvements	0.9	The predominant cause is the Air Force's decision to modify the SV buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, O&S, extends two additional years along with two additional years of O&S costs. Portion of requirements moved to CES 1.0.
Other	0.0	
Not Categorized	0.0	

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY$M) Base Year: 2020							
System	**Unit-Level Manpower**	**Unit Operations**	**Maintenance**	**Sustaining Support**	**Continuing System Improvements**	**Other**	**Total**
GPS IIIF	138.0	0.0	452.6	140.5	190.1	0.0	**921.2**
Program	**138.0**	**0.0**	**452.6**	**140.5**	**190.1**	**0.0**	**921.2**

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY$M) Base Year: 2020							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
GPS IIIF	5.5	0.0	18.1	5.6	7.6	0.0	**36.8**

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
GPS IIIF	1	25.0	System	2027 - 2051

Additional O&S Estimate Assumptions

- First GPS IIIF SV launch in FY 2026 (Operations Accepted (OA) in FY 2027) and OA the last SV32 in FY 2036
- GPS IIIF SV have an expected design life of 15 years
- GPS IIIF Simulator support starting FY 2027, ends when GPS IIIF reaches End of Life (EOL) (FY 2051)
- Updated Aerospace EOL analysis extends IIF EOL to FY 2038, IIR-M EOL to FY 2040, GPS III EOL to FY 2045
- GPS IIIF Flight Software lab to transition to Sustainment after OA of SV32 (est. FY 2036)
- Acquisition to fund any tech insertions to the GPS IIIF Simulator

Antecedent Estimate Assumptions

None

O&S Annual Cost Calculation Memo

The annual O&S Cost was calculated based on the total CY 2020$M cost of $921.2 and divided by the expected service life of 25 years (2027-2051), resulting in an annual O&S Cost of $36.848M based on the 2023 SBE that was approved on January 8, 2024.

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
Global Positioning System III Follow-On (GPS IIIF)	FA880718C0009 / 5	LOCKHEED MARTIN CORP	Development

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	FA880718C0009	**Order Number:**	-
Contract Title:	Global Positioning System III Follow-On (GPS IIIF)	**Strategy:**	-
CAGE:	04236 - LOCKHEED MARTIN CORP	**Contracting Office:**	SSC/PCM - Medium Earth Orbit
City, State/Province:	LITTLETON, CO		
Effort Number:	5	**Supported Phase:**	Development
Type:	Fixed-Price with Award Fee	**Award Date:**	September 26, 2018
Latest Modification Date:	-	**Definitization Date:**	-
Latest Modification No.:	-	**Work Start Date:**	September 26, 2018
Technical Data Rights:	-		

Notes:

Target Price Change Explanation
The Current Target Price of $3,484M is significantly higher than the Initial Target Price primarily due to the exercise of Space Vehicle (SV) Options 13-20. Ten SVs were exercised in total (two RDT&E, eight Production). SV13-14 were exercised in October 2020. SV15-17 were exercised in October 2021. SV18-20 were exercised in October 2022.

General Variance Explanation
Data current as of the January 2024 Integrated Program Management Report.

Initial Price (TY$M) Target / Ceiling		Current Price (TY$M) Target / Ceiling		Estimate at Completion (TY$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
1,362.1	1,499.7	3,483.5	3,776.4	3,657.0	3,302.0	2	10	-

Work Completed (%):	50.21%
Cost Variance (TY$M):	-158.9
Schedule Variance (TY$M):	-40.6

Factors Contributing to Cost Variance and Projected Effects on Program Costs

The unfavorable Cost Variance in the December 2022 SAR of -$70.0M has degraded to -$168.7M in the December

2023 SAR. The variance is primarily due to the SV11/12 Harness design updates, delayed design releases in SV11-14 Scalable Power Regulation Unit's (SPRU) Circuit Card Assemblies, and ongoing technical issues and staffing challenges in the Linearized Traveling Wave Tube Amplifier (LTWTA).

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

The unfavorable Schedule Variance in the December 2022 SAR of -$50.1M has degraded to -$64.6M in the December 2023 SAR. Ongoing manufacturing inefficiencies and rework, staffing challenges, and supply chain delivery issues with the LTWTAs, GPS Non-flight Satellite Testbed Structure, SPRU, and the L3Harris Mission Data Unit continues to affect the schedule performance.

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	-	-	-
Appropriations (TY, $M)	10,809.8	10,809.8	100.0%
Expenditures (TY, $M)	10,809.8	2,266.6	21.0%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	2			
Procurement	20			
Total	**22**	-	-	-

Notes

None

(U) International Program Aspects

General Memo

The Search and Rescue (SAR)/GPS payload provided by Canada fills a validated National Search and Rescue Committee requirement to provide an enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for SAR.

Exportability and Business Issues

There are Export controls and International Traffic in Arms/Export Administration Regulations aspects to GPS SAR involvement. All items sent to Canada for SAR (from GPS or Lockheed Martin) are approved by the local Foreign Disclosure Office (FDO) at SSC. For non-Gov and non-Gov civilian, there are additional compliance aspects which have to be followed, which adds time and complexity to the process. SAIC for the Systems Engineering and Integration contract and Booz Allen Hamilton for the Systems Engineering and Technical Advisory contract manage the compliance of its subcontractor support as well as its company's FDO requirements.

Is design for international exportability planned?	Yes	**Industry/Partner Exportability Cost-Sharing?**	No

Program Protection: Technology Security and Foreign Disclosure Issues

None

(U) Agreements

Activity Date	Type	Agreement Number	International Partner(s)	Quantity	Funding (TY$M)
3/23/2023	ICPA	SAR/GPS Project Plan v3	Canada (CN)	20	17.5

(U) Agreement Information

Partner(s):	Canada (CN)	**Activity Date:**	3/23/2023
Type:	International Cooperative Project Agreement/Arrangement	**Agreement Number:**	SAR/GPS Project Plan v3
Notes:	None		

Canada (CN)

Fiscal Year	Funding (TY$M)	Quantity
2019	1.8	-
2020	1.8	-
2021	1.8	-
2022	1.8	-

Canada (CN) Fiscal Year	Funding (TY$M)	Quantity
2023	1.8	-
2024	1.8	4
2025	1.8	6
2026	1.8	5
2027	1.8	5
2028	1.7	-
Total	**17.5**	**20**

Modernized
Selected Acquisition Report
Supplement

Global Positioning System III Follow-On Production
(GPS IIIF)

FY 2025 President's Budget
As of: December 31, 2023

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name
Global Positioning System III Follow-On Production

Short Name
GPS IIIF

PNO
590

Lead Component
Space Force

AAF Pathway
MCA

Acquisition Type
MDAP

Acquired Systems
GPS IIIF

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR? Acq	O&S
Global Positioning System III	292	MCA	MDAP	IC	FOC/FD	No	No
NAVSTAR Global Positioning System	166	MCA	MDAP	IC	FOC/FD	No	No

Program Use of the Adaptive Acquisition Framework

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

Technologies and Systems Engineering

Global Positioning System III Follow-On Production

Major Software Efforts

Title	Status	Fielding Date	Description

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)

Acquisition Funding Notes

Global Positioning System III Follow-On Production

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	3600F	07	0305265F - GPS III Space Segment	0305265F	67A019 - GPS IIIA		
RDT&E	3600F	07	1203265F - GPS III Space Segment	1203265F	67A019 - GPS IIIA		
RDT&E	3600F	05	1203269F - GPS III Follow-On (GPS IIIF)	1203269F	653170 - GPS IIIC		
RDT&E	3620F	05	1203269SF - GPS III Follow-On (GPS IIIF)	1203269SF	653170 - GPS IIIC		
RDT&E	3620F	05	1203269SF - GPS III Follow-On (GPS IIIF)	1203269SF	653171 - GPS Enterprise Integration		
Procurement	3021F	01	GPS03C - GPSIII Follow On	1203269F	-		
Procurement	3022F	01	GPS03C - GPSIII Follow On	1203269SF	-		

Funding Sources (Operating and Support)

Note: Budget lines fund activites executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

O&S funding has not yet started and as such, there are no O&S lines of accounting.

Global Positioning System III Follow-On Production

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk

Acquisition Estimate and Quantity Summary

Global Positioning System III Follow-On Production

Acquisiton Estimates

Category PB 2025	TY ($M)	Current Base Year CY2020 ($M)	Original Base Year CY2018 ($M)	Report Fiscal Year CY2024 ($M)
RDT&E	3,438.1	2,983.5	2,890.3	3,528.7
Procurement	7,371.7	5,743.2	5,563.8	6,792.6
MILCON	-	-	-	-
O&M	-	-	-	-
Total Acquisition	10,809.8	8,726.6	8,454.2	10,321.3
PAUC	491.354	396.666	384.280	469.149
APUC	368.586	287.158	278.192	339.631

Acquisiton End-Item Quantities

System PB 2025	Development	Procurement
GPS IIIF	2	20
Total	**2**	**20**

Unit Description

Space Vehicles

Current and Future Years Defense Program Summary, TY($M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	1,801.9	292.2	244.8	189.7	160.5	130.4	106.7	512.0	3,438.1
Procurement	2,323.7	59.1	647.2	710.0	744.0	759.7	775.0	1,352.9	7,371.7
MILCON	-	-	-	-	-	-	-	-	-
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	**4,125.5**	**351.3**	**891.9**	**899.7**	**904.5**	**890.1**	**881.7**	**1,864.9**	**10,809.8**

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

Source for TY$-CY$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3600F - Research, Development, Test & Eval, AF					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2020 ($M)
Total		**1,047.4**	**1,047.4**	**-**	**1,055.6**
2008		6.470	6.5	0.839385	7.7
2009		18.703	18.7	0.850435	22.0
2010		19.200	19.2	0.861123	22.3
2011		24.175	24.2	0.877400	27.6
2012		25.446	25.4	0.892687	28.5
2013		32.922	32.9	0.907774	36.3
2014		0.060	0.1	0.920430	0.1
2015		20.000	20.0	0.929675	21.5
2016		7.383	7.4	0.943892	7.8
2017		22.471	22.5	0.963644	23.3
2018		34.117	34.1	0.983901	34.7
2019		409.214	409.2	1.002193	408.3
2020		427.210	427.2	1.027969	415.6

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

Source for TY$-CY$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3620F - RDTE, Space Force					
fiscal year		Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2020 ($M)
Total		**2,390.7**	**2,390.7**	**-**	**1,927.9**
2008			-	0.839385	-
2009			-	0.850435	-
2010			-	0.861123	-
2011			-	0.877400	-
2012			-	0.892687	-
2013			-	0.907774	-
2014			-	0.920430	-
2015			-	0.929675	-
2016			-	0.943892	-
2017			-	0.963644	-
2018			-	0.983901	-
2019			-	1.002193	-
2020			-	1.027969	-
2021		275.819	275.8	1.073796	256.9
2022		199.947	199.9	1.140558	175.3
2023		278.758	278.8	1.173191	237.6
2024		292.185	292.2	1.201785	243.1
2025		244.752	244.8	1.227619	199.4
2026		189.659	189.7	1.253399	151.3
2027		160.487	160.5	1.279721	125.4
2028		130.374	130.4	1.306595	99.8
2029		106.704	106.7	1.334033	80.0
2030		96.916	96.9	1.362048	71.2
2031		96.497	96.5	1.390651	69.4
2032		98.184	98.2	1.419855	69.2
2033		99.841	99.8	1.449672	68.9
2034		87.352	87.4	1.480115	59.0
2035		10.809	10.8	1.511197	7.2
2036		11.069	11.1	1.542932	7.2
2037		11.330	11.3	1.575334	7.2

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

Source for TY$-CY$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3021F - Space Procurement, Air Force									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2020 ($M)
Total	**307.5**	**-**	**-**	**-**	**-**	**-**	**307.5**	**-**	**283.0**
2008							-	0.845077	-
2009							-	0.857126	-
2010							-	0.869265	-
2011							-	0.887177	-
2012							-	0.901995	-
2013							-	0.922770	-
2014							-	0.936386	-
2015							-	0.947873	-
2016							-	0.965555	-
2017							-	0.988279	-
2018							-	1.018762	-
2019							-	1.047908	-
2020	307.476						307.5	1.086626	283.0

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

Source for TY$-CY$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3022F - Procurement, Space Force									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY($M)	Weighted Rate	Total CY2020 ($M)
Total	**7,064.2**	**-**	**-**	**-**	**-**	**-**	**7,064.2**	**-**	**5,460.2**
2008							-	0.845077	-
2009							-	0.857126	-
2010							-	0.869265	-
2011							-	0.887177	-
2012							-	0.901995	-
2013							-	0.922770	-
2014							-	0.936386	-
2015							-	0.947873	-
2016							-	0.965555	-
2017							-	0.988279	-
2018							-	1.018762	-
2019							-	1.047908	-
2020							-	1.086626	-
2021	573.404						573.4	1.131232	506.9
2022	835.176						835.2	1.174834	710.9
2023	607.596						607.6	1.209781	502.2
2024	59.148						59.1	1.237823	47.8
2025	647.165						647.2	1.263934	512.0
2026	710.019						710.0	1.290476	550.2
2027	744.030						744.0	1.317576	564.7
2028	759.736						759.7	1.345245	564.8
2029	775.039						775.0	1.373496	564.3
2030	733.796						733.8	1.402339	523.3
2031	138.435						138.4	1.431788	96.7
2032	108.726						108.7	1.461856	74.4
2033	107.091						107.1	1.492555	71.8
2034	106.081						106.1	1.523898	69.6
2035	84.469						84.5	1.555900	54.3
2036	56.854						56.9	1.588574	35.8
2037	9.451						9.5	1.621934	5.8
2038	8.033						8.0	1.655995	4.9

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

3600F - Research, Development, Test & Eval, AF				
fiscal year	GPS IIIF			Total
Total	**-**			**-**
Undistributed	-			-

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

3620F - RDTE, Space Force				
fiscal year	GPS IIIF			Total
Total	**2**			**2**
Undistributed	2			2

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

3021F - Space Procurement, Air Force				
fiscal year	GPS IIIF			Total
Total	**1**			**1**
Undistributed				-
2020	1			1

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Global Positioning System III Follow-On Production

3022F - Procurement, Space Force				
fiscal year	GPS IIIF			Total
Total	**19**			**19**
Undistributed				-
2020				-
2021	2			2
2022	3			3
2023	2			2
2024	-			-
2025	2			2
2026	2			2
2027	2			2
2028	2			2
2029	2			2
2030	2			2

Nuclear Costs

Global Positioning System III Follow-On Production

Program's Use of Department of Energy Resources

None

Operational Fielding Plan

Global Positioning System III Follow-On Production

System: GPS IIIF

Fielding and Inventory Notes
Not applicable to this Program.

GPS IIIF Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					
2024					-
2025					-
2026					-
2027					-
2028					-
2029					-

O&S Independent Cost Estimate

Global Positioning System III Follow-On Production

Independent and Current Cost Estimate Comparison

Category CY2020 ($M)	Independent Cost Estimate 6/15/2020	Current Estimate 1/8/2024	Variance with ICE (%)
Unit-Level Manpower		138.0	-
Unit Operations			-
Maintenance	440.0	452.6	3%
Sustaining Support	60.8	140.5	131%
Continued System Improvements	189.2	190.1	0%
Other			-
Total O&S	**690.0**	**921.2**	**33%**

Independent Cost Estimate Source

Event: Milestone C
Type: Component Cost Position
Approved by: Air Force Cost Analysis Agency, June 15, 2020

Current Cost Estimate Source

Type: Single Best Estimate
Approved by: PEO, January 8, 2024

Cost Estimate Variance Explanation

The predominant cause of the Cost Estimate variance between the FY 2020 Milestone C Component Cost Position and the FY 2024 SBE is due to the Air Force's decision to modify the Space Vehicle (SV) buy-profile and extend SV procurements for two additional years beyond originally planned in the SCP. As a result, O&S, extends two additional years along with two additional years of O&S costs. Portion of requirements moved to Cost Element Structure 1.0.

Annual Operating and Support Estimates by Cost Element

Global Positioning System III Follow-On Production

System: GPS IIIF

Source for TY-CY Conversion: Greenbook FY24

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2020 ($M)
Total	**138.0**	**-**	**452.6**	**140.5**	**190.1**	**-**	**921.2**
2027	3.306		8.666	3.038	0.791		15.8
2028	3.327		8.842	3.057	0.796		16.0
2029	3.349		9.019	4.178	0.801		17.3
2030	3.371		9.198	4.205	0.806		17.6
2031	3.392		9.379	4.233	0.812		17.8
2032	3.414		9.562	4.260	0.817		18.1
2033	3.436		9.747	4.287	0.822		18.3
2034	3.459		9.935	4.315	0.827		18.5
2035	3.481		10.124	4.343	1.184		19.1
2036	9.574		46.308	8.211	16.697		80.8
2037	9.636		46.588	8.263	19.299		83.8
2038	9.699		46.869	8.316	19.387		84.3
2039	9.761		29.637	7.818	15.113		62.3
2040	9.824		29.829	7.869	15.179		62.7
2041	7.140		20.106	7.036	11.902		46.2
2042	7.186		20.236	7.081	11.947		46.5
2043	7.232		20.367	7.127	11.993		46.7
2044	7.279		20.498	7.173	12.039		47.0
2045	7.326		20.631	7.220	12.086		47.3
2046	3.737		11.002	4.663	6.077		25.5
2047	3.761		11.073	4.693	6.100		25.6
2048	3.785		11.145	4.723	6.124		25.8
2049	3.810		11.217	4.754	6.148		25.9
2050	3.835		11.290	4.784	6.172		26.1
2051	3.859		11.363	4.815	6.196		26.2