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**2d Space Operations Squadron**

**Mission**

Provide combat-ready space warfighters delivering position, navigation, and timing to optimize the full range of Air Force, Joint Force and civilian operations, across all domains

**Vision**

The dominant Global Navigation System provider innovating and accelerating positioning, navigation, and timing through modernization and integration
BLUF – Busiest modernization period in GPS history and significant change in culture toward warfighting
Successfully & Innovatively Executing Operations
- Defensive Cyber Operator Position
- Largest ground system update in history
- GPS Warfighter Collaboration Cell

Planning for Tomorrow thru Innovation/Integration
- Automation of State of Health operations
- SVN 54 EOL experimentation
- Cooperation with 17TS for TTP refinement

Taking Care of Airmen and Families
- Family involvement with organization
- Group and Wing level recognition
24/7 Support
- DoD’s focal point for near real-time products to authorized users
- Collaboration w/ +35 MIL & +4 CIV Orgs
- Short-term tasking requests

Products Delivered
- 405 Space Support Requests (SSR) for US and Coalition Forces
- 97 Requests for Anomaly Analysis (RAA) worldwide to civil and government users
- 96 Requests for Information (RFI) requiring technical GPS analysis

GPS Anomaly Resolution Support
- Analysis of constellation integrity at time of occurrence
- Position Error abnormalities
- Limited to constellation analysis only… cannot aid with any type of receiver problems
GPS Constellation

IIA

1 Operational
2 in Reserve

Manufacturer: Boeing
First Launch: November 1990
# of SVs: 19 satellites
Designed Life: 7.5 years
Dimension: 17¼ feet wide
Weight: 4,000 lbs at launch

Signals Added: L2C, L1M/L2M (M-Code)

IIR/R-M

11 Operational/1 Experimental/
IIR-M 7 Operational/1 in Test

Manufacturer: Lockheed
First Launch: July 1997 (IIR),
September 2005 (IIR-M)
# of SVs: 20 satellites
Designed Life: 7.5 years
Weight: 4,480 lbs at launch

Signals Added: L2C, L1M/L2M (M-Code)

IIF

12 Operational

Manufacturer: Boeing
First Launch: May 2010
# of SVs: 12 satellites
Designed Life: 12 years
Dimension: 57 ½ feet wide
Weight: 3,400 lbs at launch

Signals Added: L5 Safety of Life, M-Code

III

2 in Test

Manufacturer: Lockheed
First Launch: December 2018
# of SVs: 10
Designed Life: 15 years
Dimension: 17¼ feet wide
Weight: 5,003 lbs at launch

Signals Added: L1C GNSS Compatible, Spot Beam M-Code Capable
Significant Milestones Over the Next 10 Months

- **GPS III–2** Launch Aug 19
- AEP 8.0 (COps) @ MCS/AMCS (MOX) Sep 2019
- New PTF @ Wooten Sep 19
- MCEU Cadre Training Oct – Nov 19
- GPS III–3 Launch Nov 19
- AEP 8.0 (COps) Ops Acceptance Mar 20
- AEP 9.0 (MCEU) MCS/AMCS May 20
- GPS III-1 & AEP Integrated Sys Testing (MOX) Oct – Nov 19
- GPS III-1 SCA Transfer SMC to 14 AF Dec 19
- GPS III Flt SW Update Apr 20

2 SOPS Way Ahead
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