2d Space Operations Squadron

Home of the Global Positioning System

U.S. AIR FORCE

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

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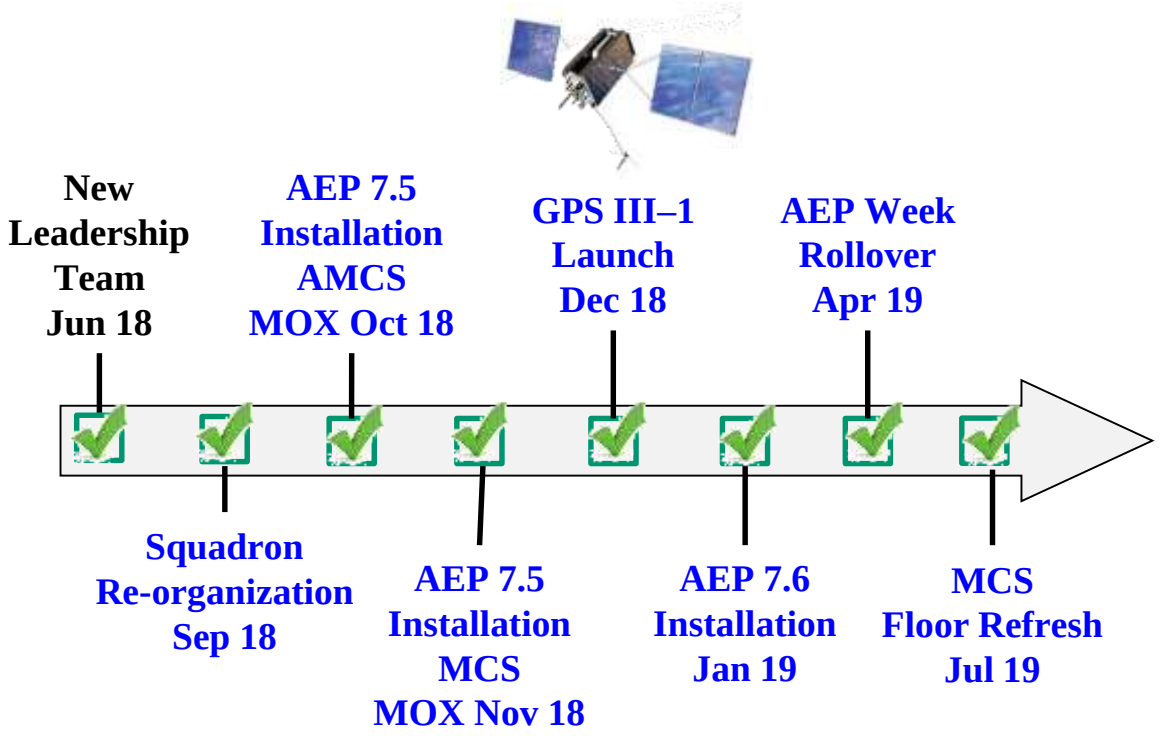
GPS Big Picture

- **BLUF – Busiest modernization period in GPS history and significant change in culture toward warfighting**



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Three Up

- **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

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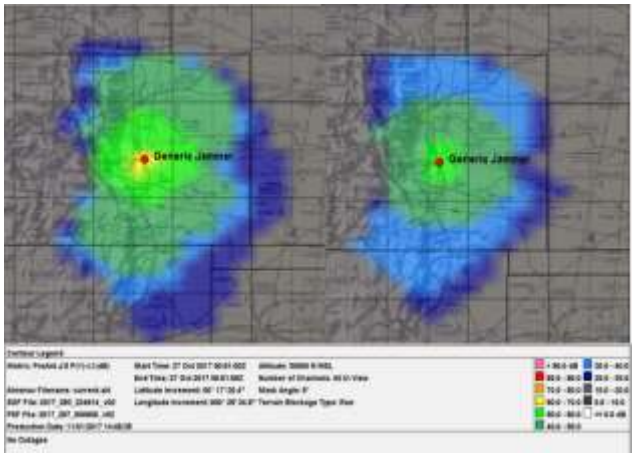
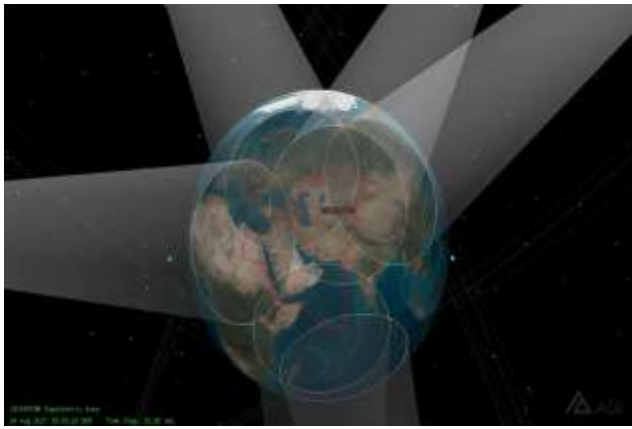
GWCC Functional Capabilities and Highlights

- **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**





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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

IIR/R-M

IIR
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

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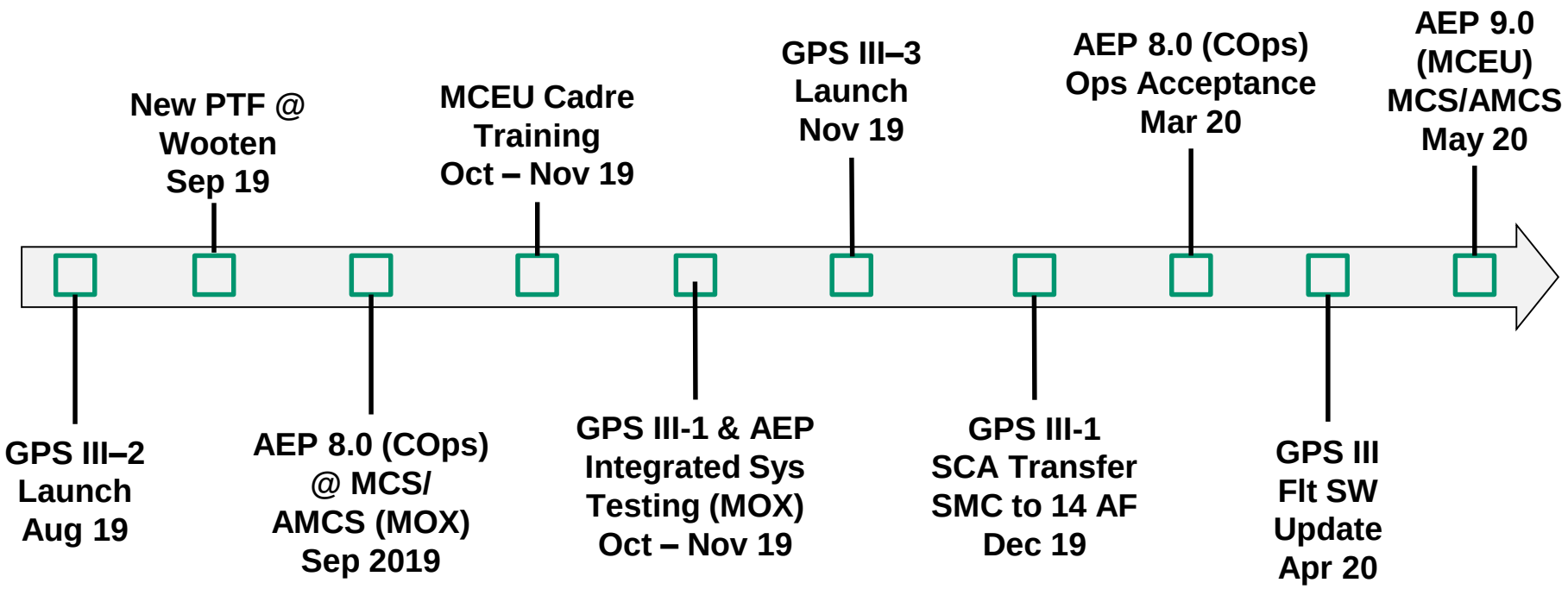
2 SOPS Way Ahead



Significant Milestones Over the Next 10 Months

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