

# Navstar GPS - Operational Control Segment Future System Description



Schriever AFB, CO

L-Band



S-Band



● GPS Monitor Stations  
◆ NIMA Monitor Stations

▲ GPS Ground Antennas

- **New Master Control Station (NMCS)**
  - Improved operator interfaces
  - IIR-M and IIF capabilities
- **Integrated Mission Ops Support Center**
- **Operational Support System**
- **GPS Support Facility**
- **Launch and Early Orbit, Anomaly Resolution and Disposal Operations (LADO) System**
- **System Simulator (crew training)**



Vandenberg AFB, CA

- **Crew Training Emulator**
- **System Simulator (AMCS)**



Cape Canaveral, FL

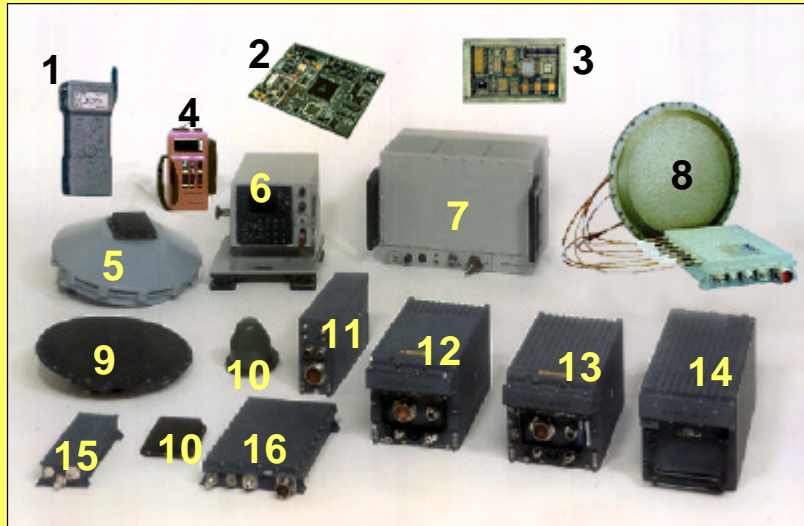
- **Transportable Ground Antenna**
- **Test Assets**
  - **System Telecom Simulator (IIF)**



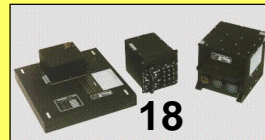
VAFB, CA

**Alternate Master Control Station (AMCS)**

# GPS User Equipment



1. Combat Survivor Evader Locator (CSEL)
2. GPS Receiver Applications Module (GRAM) with SAASM
3. Selective Availability Anti-Spoofing Module (SAASM)
4. Precision Lightweight GPS Receiver (PLGR)
5. FRPA Ground Plane
6. Standard Control Display Unit
7. Receiver 3S
8. GPS Antenna System (GAS) –1
9. Controlled Radiation Pattern Antenna
10. Fixed Radiation Pattern Antenna (FRPA)
11. Miniature Airborne GPS Receiver (MAGR)
12. Receiver OH (MIL-STD-1553)
13. Receiver UH (ARINC 429)
14. Receiver 3A
15. Antenna Electronics AE-4
16. Antenna Electronics AE-1/AE-1A
17. Embedded GPS / Inertial Navigation System
18. Doppler-GPS Navigation System



**Capabilities to meet warfighter position, velocity, and timing requirements plus system expertise for warfighters**