Space and Missile Systems Center

GPS Control Segment Improvements

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Purpose

Provide GPS Partnership Council with an update on improvements being made to the fielded GPS Operational Control Segment (OCS)
GPS Ops Support and Sustainment Division

• Who We are
  – SMC/GP Logistics Professionals located at Los Angeles AFB, Peterson AFB, and Schriever AFB

• What We Do
  – Sustain and modify the fielded GPS Command and Control systems
  – Provide GPS space vehicle on orbit support
  – Assist development in acquiring and transitioning new capabilities/systems
GPS OCS Operating Locations

- Master Control Station (MCS)
- Alternate Master Control Station (AMCS)
- National Geospatial-Intelligence Agency (NGA) Tracking Stations
- Ground Antenna (GA)
- Monitor Station (MS)
Upgrades On Contract: Complete or In Progress

- Remote Sites (RS) COTS Network (RSCN) Upgrade
  - Separated GA and MS functionality at Co-Located Sites
  - Modernized RS Network Architecture
  - Modernized COTS Software
  - Status: Completed Oct 2013

- GPS Intrusion Protection Reinforcement (GIPR)
  - Modernizes MCS/AMCS Network Architecture
  - Modernizes COTS Software
  - Status:
    - MCS Phase 1 Completed Nov 2014
    - MCS Phase 2 Completes Jul 2015
    - AMCS Phase 1&2 Completes Aug 2015
• COTS Upgrade Project (CUP) Phase 2
  – Modernizes MCS/AMCS Mission Servers
  – Modernizes COTS Software
  – Status:
    • MCS Completes May 2016
    • AMCS Completes Jun 2016
Upgrades Funded But Not On Contract

- GA/Automated Remote Tracking System (ARTS) Interface Technology Refresh (GAITR)
  - Modernizes Front End Processors and Type 1 encryption devices
  - Relocates GA “red shelter” functionality to MCS/AMCS
  - Status:
    - Estimated contract award Jul 2015
    - Estimated 24 month period of performance
- CUP Phase 3
  - Modernizes remaining legacy servers and workstations at MCS/AMCS
  - Status:
    - Estimated contract award Nov 2015
    - Estimated 24 month period of performance
Upgrades Funded But Not On Contract

- LADO Modernization Program (LMP)
  - Modernizes FEPs and Type 1 encryption devices
  - Upgrades COTS operating system
  - Status:
    - Estimated contract award Jun 2015
    - Estimated 18 month period of performance
Summary

Executing OCS upgrades in order to ensure system viability until replaced by the OCX program.