

Space and Missile Systems Center



GPS Control Segment Improvements

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Report Documentation Page

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Purpose

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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

SPACE AND MISSILE SYSTEMS CENTER

- 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

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- 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

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- 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



Upgrades On Contract: Complete or In Progress

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- 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

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- 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

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- 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

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