

# Space and Missile Systems Center



## GPS Control Segment Improvements

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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

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- 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