



Air Force Reserve Role in GPS Operations

15 Sep 15

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Commander, 19th Space Operations Squadron





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19th Space Operations Squadron



- Reserve Associate to AFSPC's 2 SOPS (Est. October 2000)

- Reservists are a critical component of GPS operations
 - 40% of total manpower authorized (31 full-time / 42 part-time)
 - 98% of crews for launch operations
 - Average Mission Experience: 19 SOPS – 5 years
2 SOPS – 2 years

- GPS Mission Area Support
 - Crew Augmentation
 - Launch, Anomaly Resolution, Disposal Operations
 - NAVWAR (Navigation Warfare)
 - Modernization (OCX C2 System, GPS III)



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Launch Operations



- Launch team geographically separated (Cape Canaveral, Schriever, Los Angeles)
- Preparation begins ~ 90 days prior to launch
- 8 major pre-launch tests/exercises
- Block IIF satellite – 12-year design life; provides more robust commercial aviation and safety-of-life applications
- Checkout operations last approx. a month
- First 4 days after launch - 19 SOPS is on crew full-time, then periodically after

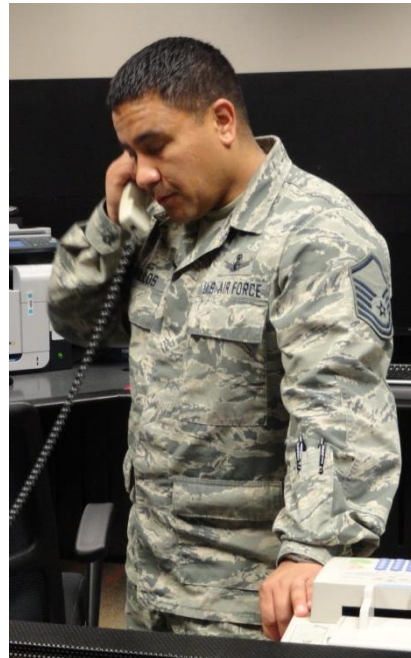


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Launch Operations



- Reservists comprise 95% of operations team
- Work in tandem with program office and vehicle contractors



**Reservists “set the standard for launch operations in the 50 SW”
50 SW/CC**



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Launch Operations



Launched 5 satellites in 13 months – a feat not accomplished in over 21 years!

Integrity - Service - Excellence



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Disposal Operations

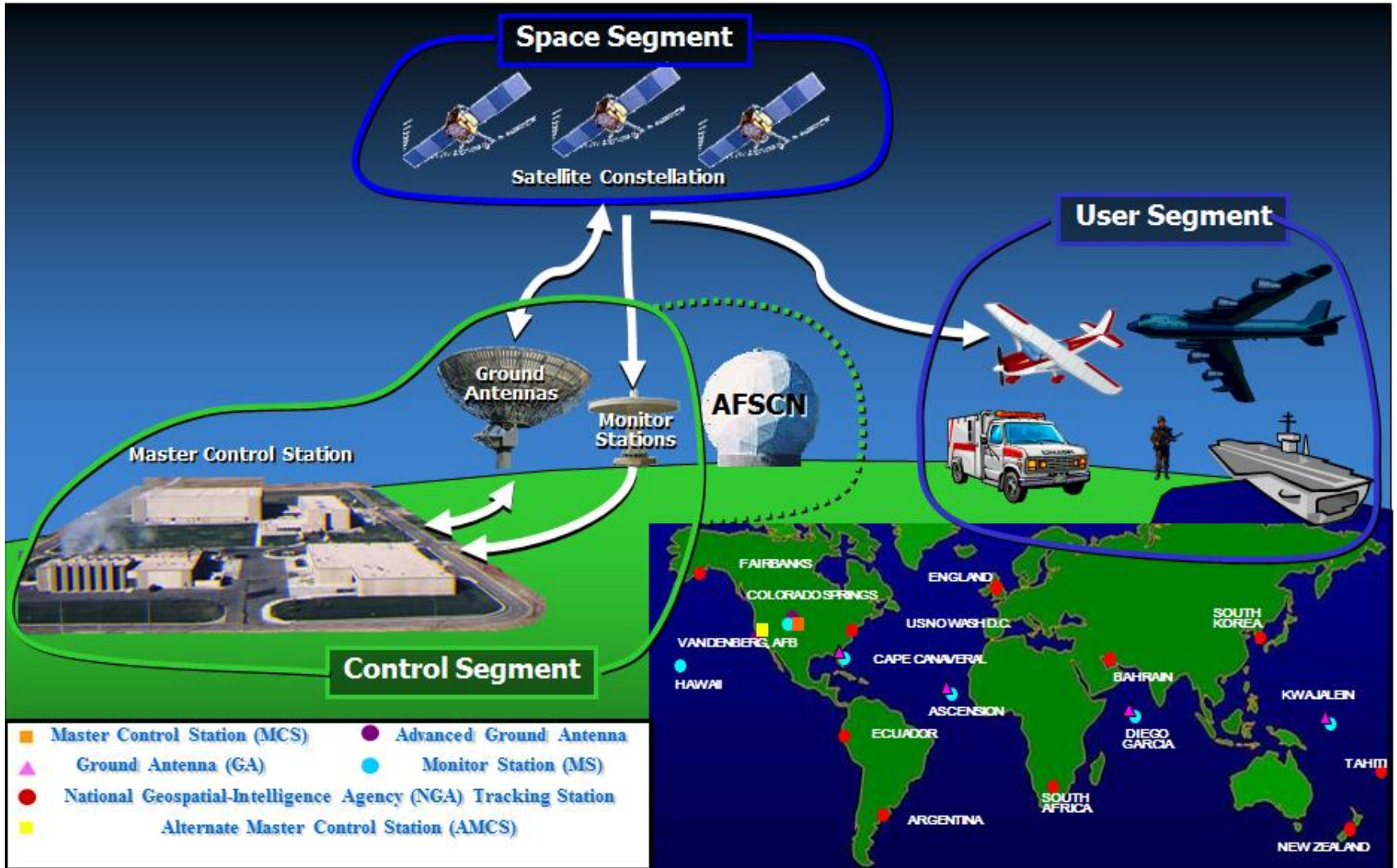


- **Reservists provide continuity in disposal operations**
 - **More than 2 year hiatus before Oct 14 disposal; active duty personnel did not have experience**
 - **Launched new satellite and disposed of old in same month**
- **Disposed of 3 satellites in 12 months**
 - **Approx. 1 week to dispose, 2 months of prep**
 - **Work closely with 2 SOPS and vehicle contractor**



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GPS Segments





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Modernization



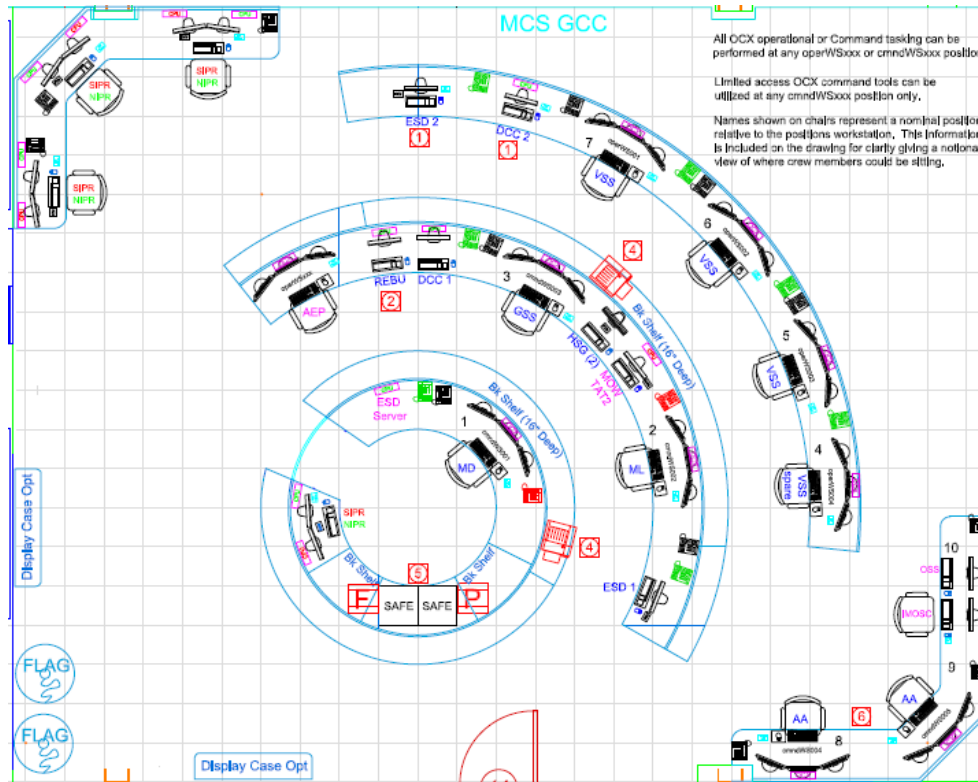
- Reservists provide the long-term operational expertise (SMEs)
- Serve in varying operator capacities:
 - Development – Operational Suitability
 - Test – Development & Operational
 - Exercises / Rehearsals
 - Transition to Operations





Modernization

- Ground Control Segment Development Activities
 - Next Generation Operational Control System (OCX)
 - Launch and Checkout System (LCS)
 - Standard Space Trainer (SST)





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Modernization



- **Space Segment Development Activities**
 - **Command and Control of GPS III satellite vehicles**
 - **New GPS III capabilities**

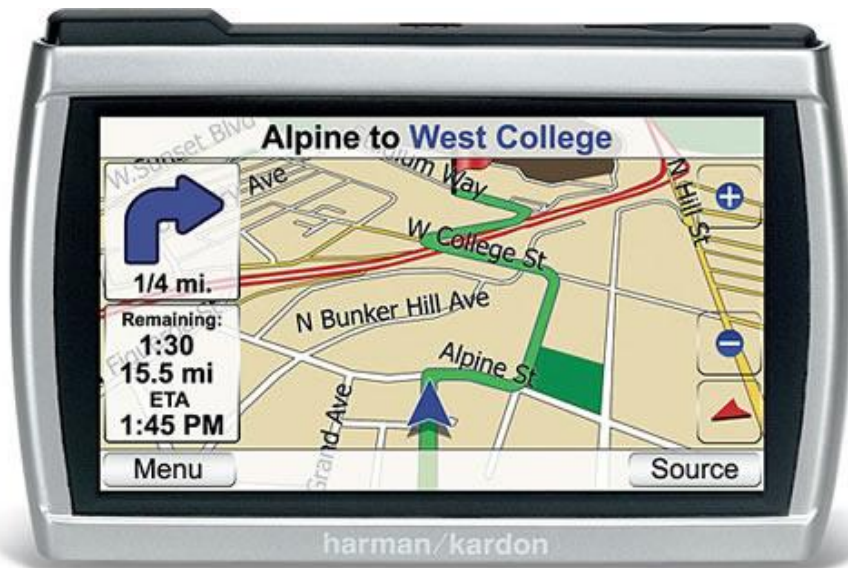




Modernization



- User Segment Development Activities
 - Civil and Military user equipment “live sky” activities
 - NAVWAR tactics and warfighter support





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Questions?



Non pro palma, tamen pro invicem
“Not for glory, but for each other”