



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE

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U.S. Space-Based Positioning, Navigation and Timing (PNT) Policy Update

**National Space-Based Positioning, Navigation, and Timing
Advisory Board
Boulder, Colorado**

**Harold W. Martin III
Director
National Coordination Office**

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GPS Enables a Diverse Array of Applications



Surveying and Mapping



Power Grids

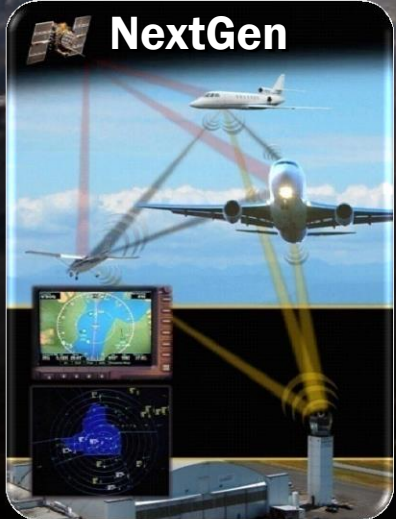


Precision Agriculture

Space Applications



Transit Operations



NextGen



Disease Control Mapping



Intelligent Vehicles



TeleComm



Trucking



Personal Navigation



Shipping



Oil Exploration



Fishing and Boating

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GPS 411



- **GPS is a constellation of satellites that uses radio frequencies to provide users with precise positioning, navigation, and timing (PNT) services**
 - Global coverage, 24 hours a day, all weather conditions
- **It's Free to use! No direct fees for GPS services**
- **GPS cannot track you**
- **Best performing global navigation system in existence: More accurate than GLONASS, Galileo, or BeiDou – and GPS keeps getting better**
- **Congressional support for GPS Modernization will keep GPS in the lead**

GPS must continue to be the most accurate, capable, and reliable global navigation system

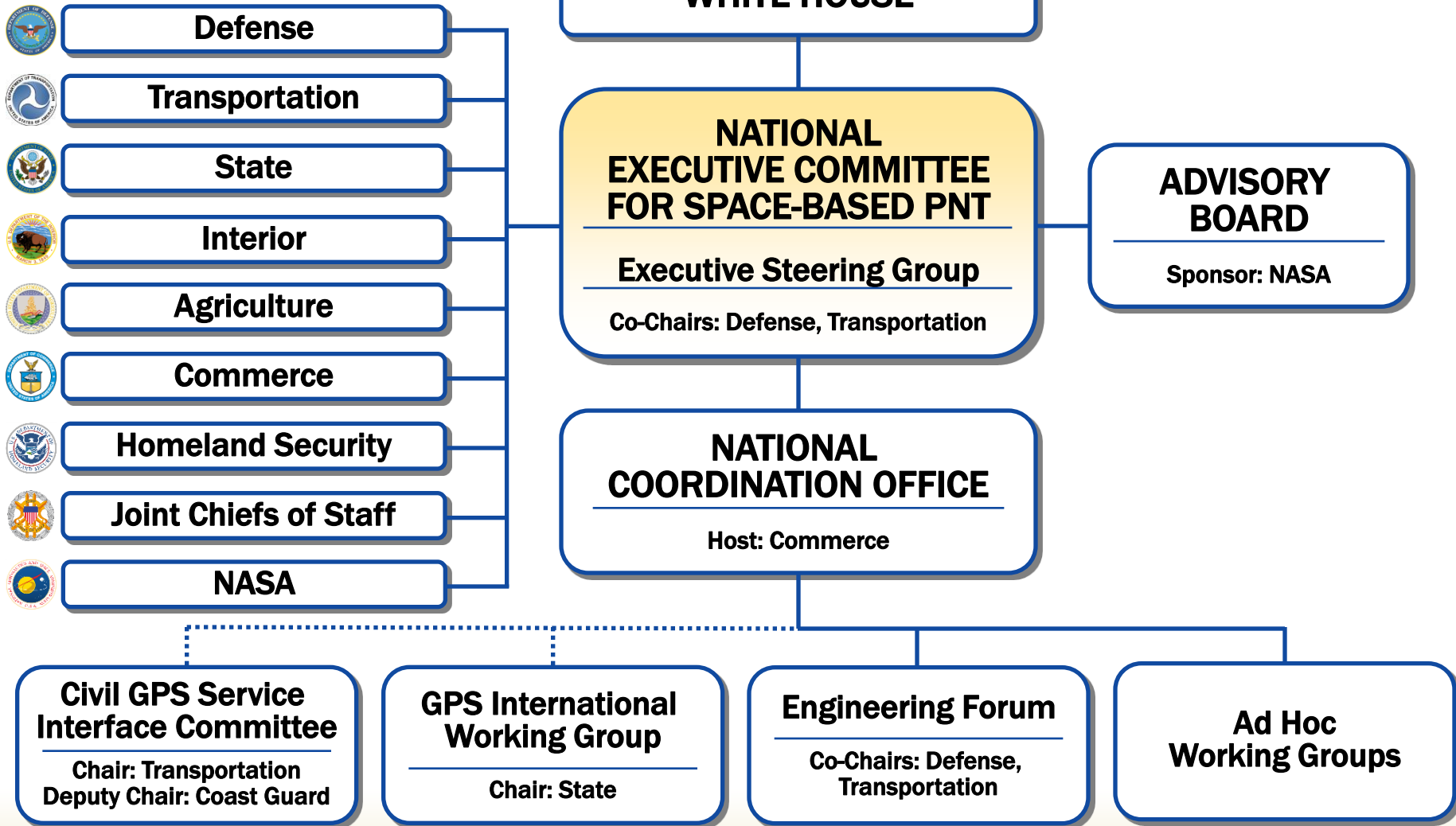


U.S. Policy

The U.S. must maintain its leadership in the service, provision and use of Global Navigation Satellite Systems (GNSS)

- Continuous, worldwide, free of direct user fees
- Encourage compatibility and interoperability with foreign GNSS services and promote transparency in civil service provisioning
- Operate and maintain constellation to satisfy civil and national security needs
 - Foreign PNT services may be used to augment and strengthen the resiliency of GPS
- Invest in domestic capabilities and support international activities to detect, mitigate and increase resiliency to harmful interference

National Space-Based PNT Organization





Complementary PNT

- **EXCOM looked at need for complement to GPS**
 - Assessment driven by many factors: from policy to technology
 - U.S. coverage for GPS outage from natural or man-made events
- **Current Activity: Identify and assess alternatives**
 - Assessed a broad mix of terrestrial RF and autonomous PNT technologies
- **Decision timeline supports FY17 investment decisions**
- **Public stakeholder comments obtained by *Federal Register Notice***



Thank You!



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***GPS: Continuous improvement,
 predictable, dependable performance***