



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE

GPS Perspectives

Aerospace Industry Association

GPS Modernization Luncheon

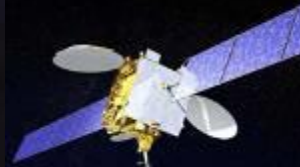
June 2, 2015

Harold W. Martin III

Director, National Coordination Office

Space-Based Positioning, Navigation and Timing

GPS enables a diverse array of applications



Space Applications



Surveying & Mapping



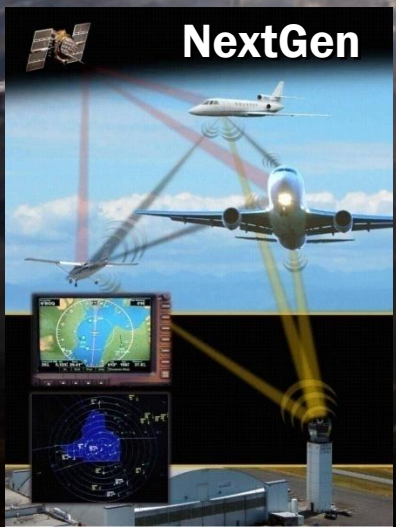
Power Grids



Precision Agriculture



Transit Operations



NextGen



Disease Control



Intelligent Vehicles



TeleComm



Trucking Shipping



Personal Navigation



Oil Exploration



Fishing & Boating



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



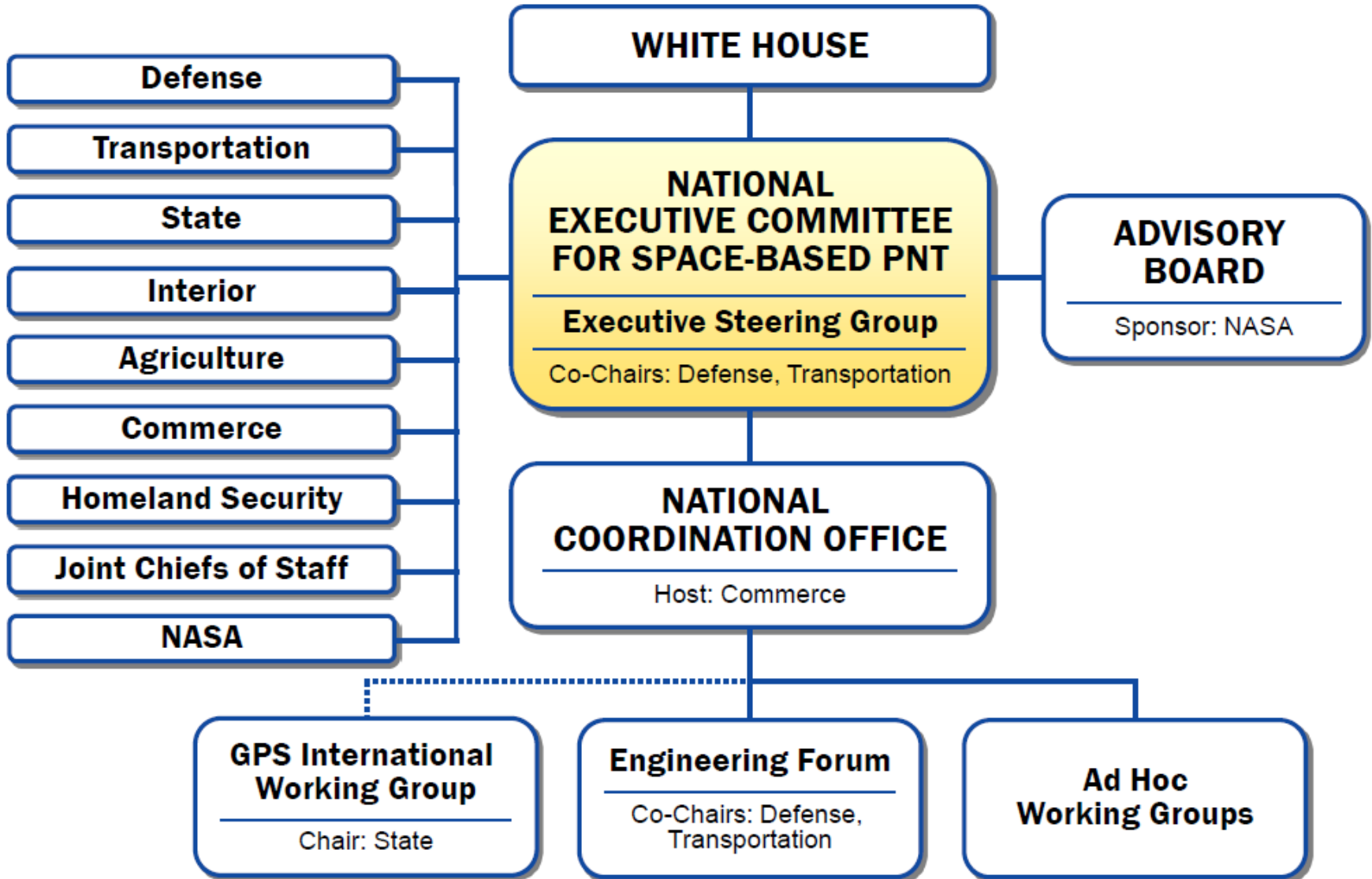
U.S. Policy

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 (CPNT)

- **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: No earlier than summer 2015**
 - Supports FY17 investment decisions
- ***Federal Register* Notice published 23 March for public stakeholder engagement**



Public Comment/Stakeholder Outreach

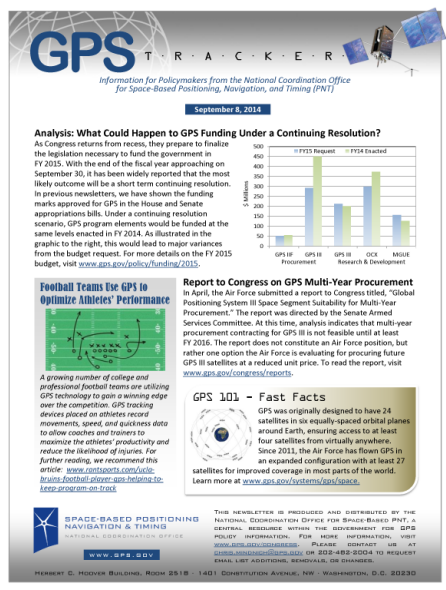


- DOT issued a *Federal Register* Notice in conjunction with Complimentary PNT (CPNT) Team seeking:
 - Brief description of PNT application(s)
 - PNT performance required for a complementary PNT capability
 - Availability and coverage area required for a CPNT capability
 - Willingness to equip with an eLoran receiver
 - Current/planned availability of e-Loran user equipment
 - Other non-eLoran PNT technologies or operational procedures currently available or planned
- Widely circulated to stakeholder communities
- Comments posted on www.regulations.gov when received

Synopsis of Comments Provided At End of Comment Period



Thank You!



- “GPS Tracker” Newsletter published by NCO
- Primarily designed for congressional outreach and education
- May be of interest to GPS professionals
- Anyone can subscribe or download back issues

www.gps.gov/congress/newsletter

Contact Information: National Coordination Office for Space-Based PNT
 1401 Constitution Ave, NW – Room 2518
 Washington, DC 20230
 Phone: (202) 482-5809

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