



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE

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Current Status and Future Perspective of the U.S. GPS Program

**International Association of Institutes of Navigation
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Prague, Czech Republic**

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GPS Enables a Diverse Array of Applications



Space Applications



Surveying and Mapping



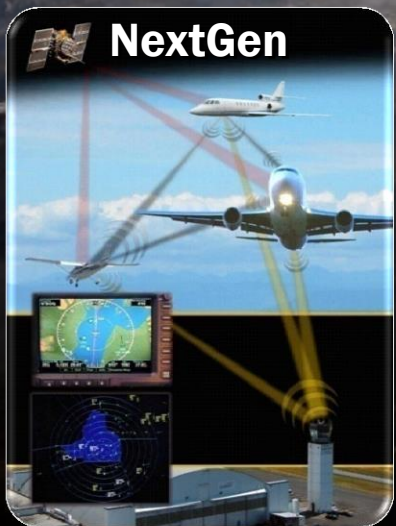
Power Grids



Precision Agriculture



Transit Operations



NextGen



Disease Control Mapping



Intelligent Vehicles



TeleComm



Trucking



Personal Navigation



Shipping



Oil Exploration



Fishing and Boating

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GPS Fact Sheet

- **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**
- **Uninterrupted global navigation service continues to exceed performance standards—GPS keeps getting better**

U.S. leads in the service, provision, and use of GNSS

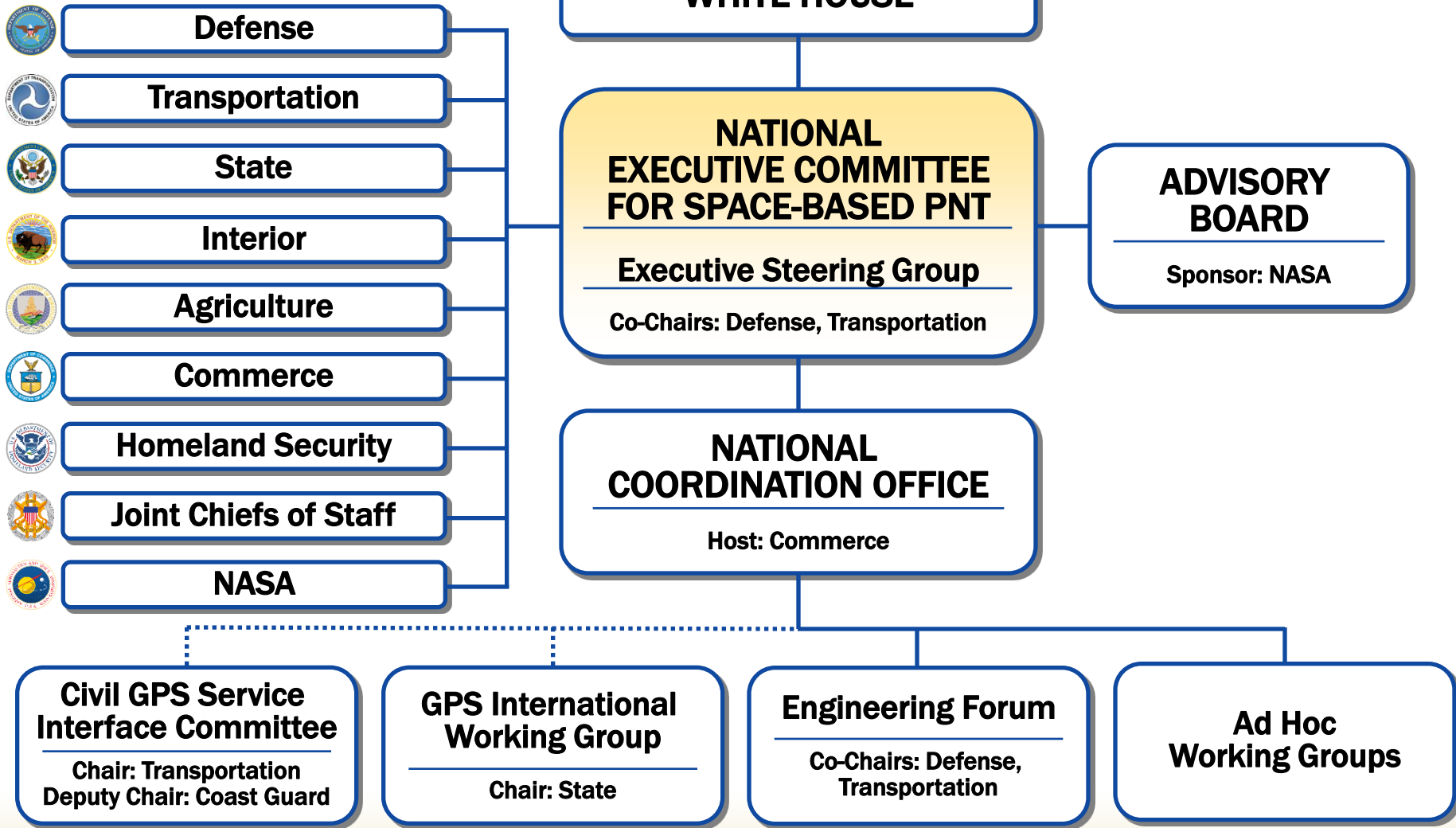


U.S. Policy

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





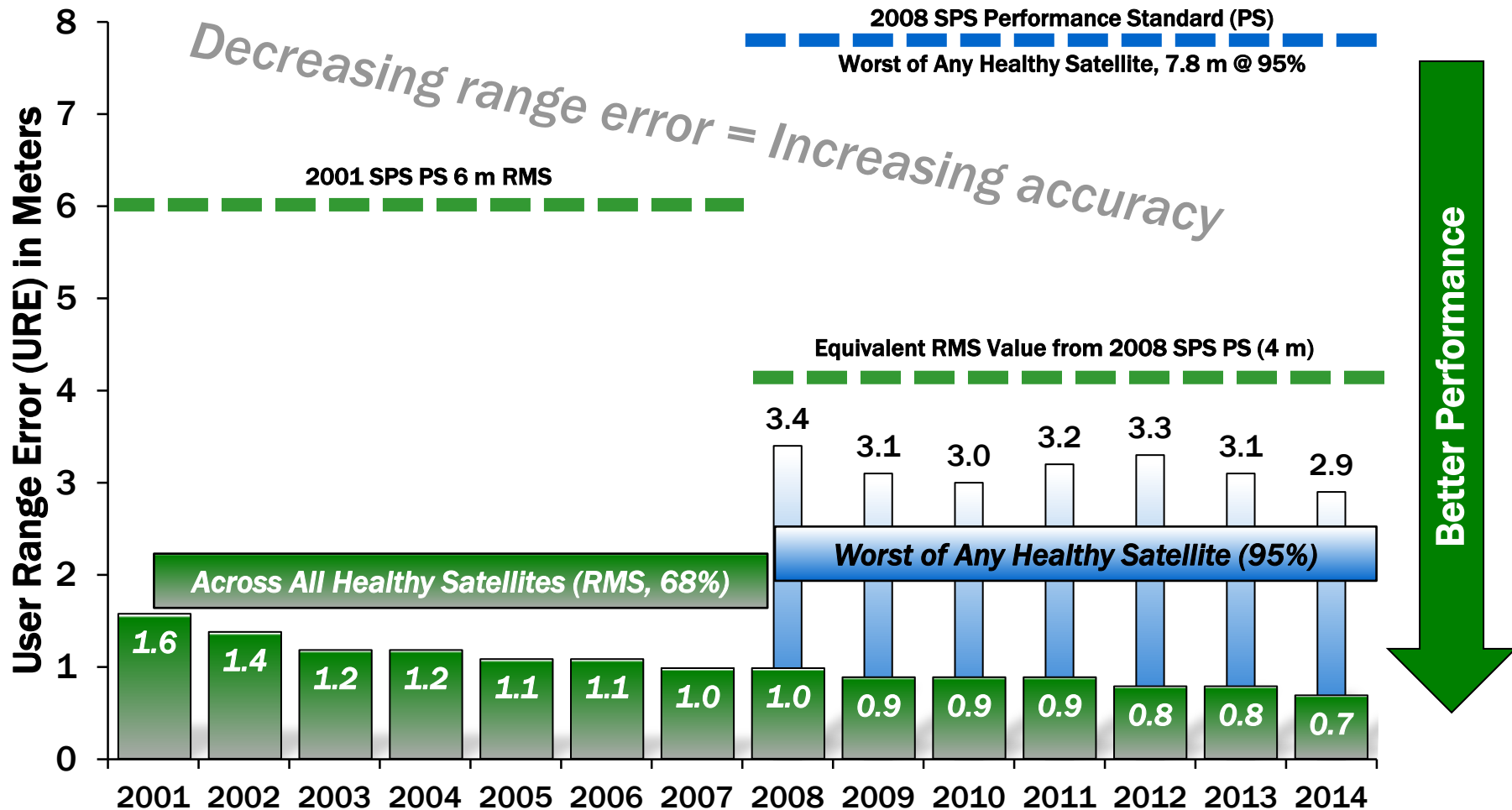
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Accuracy: Civil Commitments

Standard Positioning Service Performance Standard



Standard Positioning Service (SPS) Signal-in-Space Performance



System accuracy better than published standard

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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***