



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE



U.S. Space-Based Positioning, Navigation & Timing (PNT): A Policy Update

Civil Global Positioning System (GPS) Service Interface Committee

***Savannah, Georgia
15-16 Sep 2008***

**Michael Shaw, Director
U.S. National Coordination Office**



Overview



- **U. S. Space-Based PNT Policy**
- **2008 EXCOM Work Plan**
 - **Accomplishments**
- **Way forward**
 - **Items to be completed by end of 2008**



2004 U.S. Space-Based PNT Policy



GOAL: Ensure the U.S. maintains space-based PNT services, augmentation, back-up, and service denial capabilities that...

ASSURES SERVICE

Provide uninterrupted availability of PNT services

MEETS DEMANDS

Meet growing national, homeland, economic security, and civil requirements, and scientific and commercial demands

LEADS MILITARILY

Remain the pre-eminent military space-based PNT service

STAYS COMPETITIVE

Continue to provide civil services that exceed or are competitive with foreign civil space-based PNT services and augmentation systems

INTEGRATES
GLOBALLY

Remain essential components of internationally accepted PNT services

LEADS TECHNICALLY

Promote U.S. technological leadership in applications involving space-based PNT services



2004 U.S. Space-Based PNT Policy



- Provide GPS and augmentations free of direct user fees on a continuous, worldwide basis
- Provide open, free access to information needed to develop equipment
- Improve performance of GPS and augmentations to meet or exceed that of international systems
- Encourage international development of PNT systems based on GPS
- Seek to ensure international systems are interoperable with civil GPS and augmentations
- Address mutual security concerns with international providers to prevent hostile use



2004 U. S. Space-Based PNT Policy



- **Recognizes the changing international scene**
 - Other nations are implementing space-based systems that provide PNT services
- **National Executive Committee for Space-Based PNT**
 - Chaired by Deputy Secretaries of Defense and Transportation
 - Membership includes: State, Interior, Agriculture, Commerce, Homeland Security, Joint Chiefs of Staff and NASA
- **Established National Coordination Office (NCO) with staff from member agencies**
- **National Space-Based PNT Federal Advisory Board**



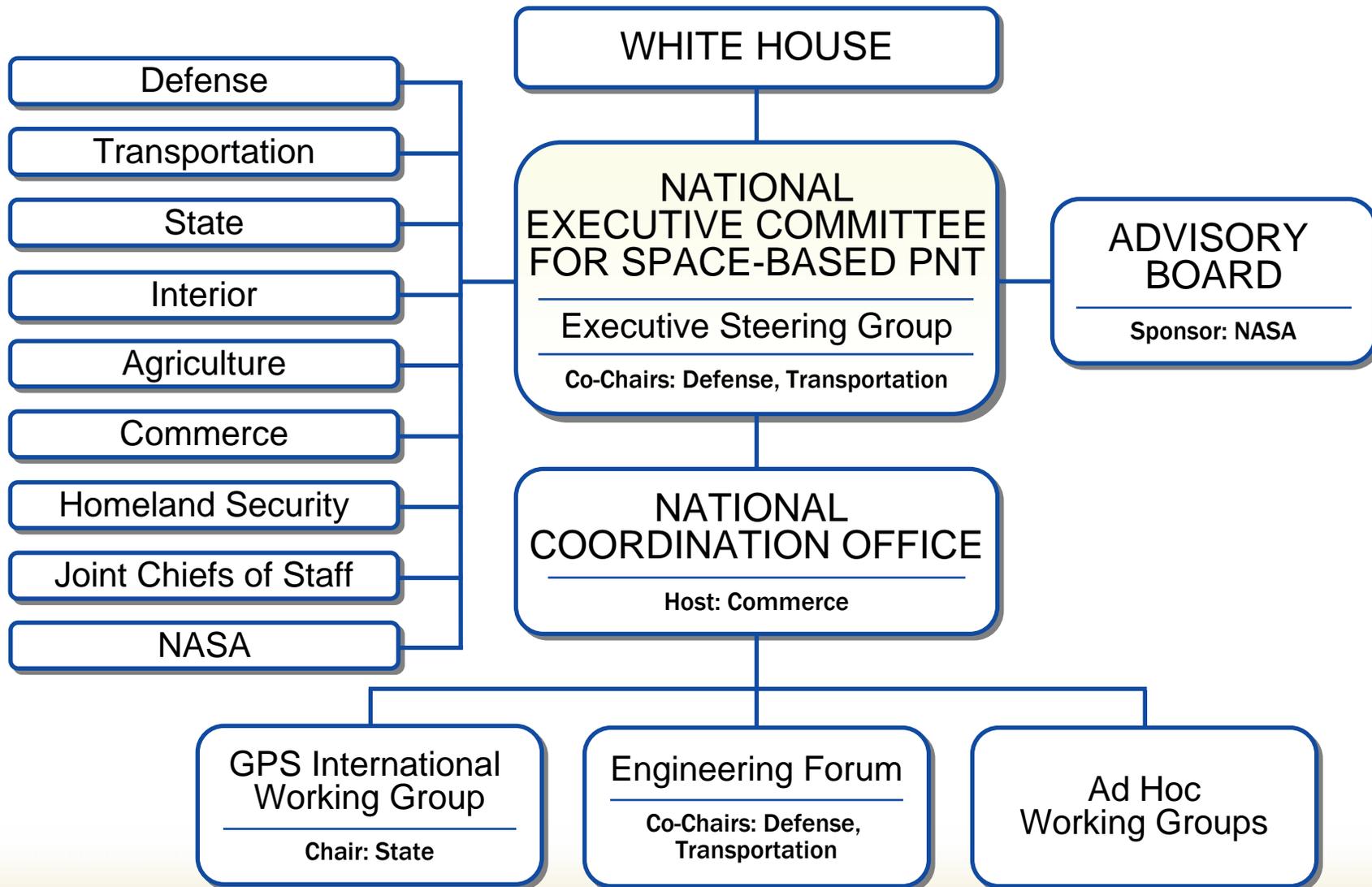
2004 U. S. Space-Based PNT Policy



- **National Space-Based PNT Advisory Board**
 - Conducts assessments; makes recommendations to EXCOM in support of national policy goals and objectives
- **Twenty-four members; 6 international members**
 - Chaired by Dr. James Schlesinger
 - Oct 07 and Mar 08 Meetings; Minutes posted on PNT.gov



U.S. Space-Based PNT Organizational Structure





U.S. Space-Based PNT Policy



- **National Executive Committee Meetings**
 - Nov 07, Mar 08 and Jul 08
- **Executive Steering Committee Meetings**
 - Met Oct 07, Jan 08 and Jun 08
- **2008 Work Plan Approved at Aug 07 EXCOM Meeting**
 - Total of 52 Action Items
 - 43 Action Items initially
 - 9 Action Items added later
 - 29 Action Items completed to date



Accomplishments Oct - Dec 07



- **Completed GPS Architecture Evolution Plan (AEP) - AF**
 - **Transitioned to new GPS Ground Control Segment**
 - **Activated fully capable backup GPS Operations Center at Vandenberg AFB**
- **Announced GPS III without Selective Availability - DoD**
- **Delivered National Space-Based PNT Five-Year Plan to White House - NCO**



Accomplishments Jan - Mar 08



- **Welcomed Departments of Interior and Agriculture as new EXCOM members - EXCOM**
- **Awarded GPS OCX Development Contracts - AF**
- **ICAO accepted US offer on GPS/SPS and WAAS**
- **Launched 2 GPS IIR-M satellites (Dec 07/Mar 08) - AF**
- **Completed IDM Implementation Strategy - DHS**
- **Released 2007 EXCOM Annual Report - NCO**
- **Established Maritime Info Operations Center - USCG**



Accomplishments Apr – Jun 08



- Released Public fact sheet on Interference Detection and Mitigation (IDM) Plan - DHS
- Held GPS Requirements Summit - Joint Staff/DOT
- **Awarded GPS IIIA Contract - AF**
- Held Asia Pacific Economic Cooperation (APEC) Summit on GNSS Innovation in Thailand – State
- **Approved National PNT Architecture Guidance Memorandum – OSD/DOT**



Accomplishments July – Sep 08



- **Convened U.S.-EU Working Group on Trade and Civil Applications - DOC**
- **Finalized Phase I Space-based PNT Spectrum Protection Plan - DOC**
- **Delivered USG GPS commitment letter to International Maritime Organization - USCG**
- **Transferred \$7.2M of civil funding to Air Force for civil unique GPS capabilities – DOT**
- **Completed amendments to the National Space-Based PNT EXCOM Charter - EXCOM**



2008 Work Plan



- **Next EXCOM scheduled for 5 Nov 08**
 - Next ESG scheduled for 10 Oct 2008
- **Next Advisory Board scheduled for 15-17 Oct 08**
- **Current 2008 Work Plan Status**
 - Total 52 Action Items
 - Total Accomplished: 29 / To Be Completed: 23



To Be Completed Oct – Dec 2008



- **Publish Federal Register Notice “Preservation of Continuity for Semi-Codeless Applications” – DoD**
- **Publish GPS SPS Performance Standard update – DoD**
- **Publish WAAS System Performance Standard – FAA**
- **Complete Action Plan for Future of Loran – DHS/DOT**
- **Deliver Biennial Congressional Report on GPS – DoD**
- **Complete MOUs for establishing Japanese QZSS monitoring stations – State/DOC/NASA**



To Be Completed Oct – Dec 2008



- **Identify FY10-13 funding sources for civil unique GPS requirements – DOT**
- **Complete funding arrangement in FY10 budget for NDGPS inland component – DOT**
- **Complete req'ts evaluation/identify resources for central repository for Interference Detection reports – DHS**
- **Renew National PNT Advisory Board charter – NASA**
- **Host 3rd meeting of the International Committee on GNSS – State/NASA**



Summary



- **U.S. Space-based PNT effort progressing significantly in areas of policy, programs and international outreach**
 - **Implementation of 2004 U.S. Policy proceeding well**
 - **Very active senior USG leadership**
 - **Continuing to improve performance of U.S. space-based PNT systems**
 - **International cooperation is a top U.S. priority**
 - **Actively engaged in multi-lateral/bi-lateral consultations**

As new space-based GNSS emerge globally, compatibility and interoperability is the key to “success for all”



Web-based Information



- **PNT.gov** established to distribute information on the U.S. National Executive Committee to include:
 - U.S. Policy, Executive Committee membership, Advisory Board and frequently asked questions
 - Recent announcement on Selective Availability and offer letter to International Civil Aviation Organization
 - All recent public presentations to include this one
- **GPS.gov** established for public information about GPS applications
 - Available in English, French, Spanish, Arabic and Chinese
 - Brochure also available in hardcopy upon request
 - Contains additional links to various other web sites



For Additional Information...

Global Positioning System - Windows Internet Explorer

http://www.gps.gov/ingles.html

English | Español | Français | 普通话 | 普通话

SISTEMA DE POSICIONAMIENTO GLOBAL

Al Servicio del Mundo

El Sistema de Posicionamiento Global (SPG) es un sistema de radionavegación de los Estados Unidos de América, basado en el espacio, que proporciona servicios fiables de posicionamiento, navegación, y cronometría gratuita e ininterrumpidamente a usuarios civiles en todo el mundo. A todo el que cuente con un receptor del SPG, el sistema le proporcionará su localización y la hora exacta en cualesquiera condiciones atmosféricas, de día o de noche, en cualquier lugar del mundo y sin límite al número de usuarios simultáneos.

El SPG se compone de tres elementos: los satélites en órbita alrededor de la Tierra, las estaciones terrestres de seguimiento y control, y los receptores del SPG propiedad de los usuarios. Desde el espacio, los satélites del SPG transmiten señales que reciben e identifican los receptores del SPG; ellos, a su vez, proporcionan por separado sus coordenadas tridimensionales de latitud, longitud y altitud, así como la hora local precisa.

Hoy están al alcance de todos en el mercado los pequeños receptores del SPG portátiles. Con esos receptores, el usuario puede determinar con exactitud su ubicación y desplazarse fácilmente al lugar a donde desea trasladarse, sea sea andando, conduciendo, volando o navegando. El SPG es

INFORMACIÓN SOBRE EL SISTEMA

- El Sistema de Posicionamiento Global
- Ampliaciones al SPG

APLICACIONES

- Cronometría
- Carreteras y Autopistas
- Espacio
- Aviación
- Agricultura
- Navegación Marítima
- Vías Férreas

GPS.gov

National Executive Committee for Space-Based Positioning, Navigation, and Timing - Windows Internet Explorer

https://www.nceps.gov/

SPACE-BASED POSITIONING, NAVIGATION & TIMING

NATIONAL EXECUTIVE COMMITTEE

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What is PNT?

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USA.gov

The National Executive Committee for Space-Based Positioning, Navigation, and Timing (PNT) is a U.S. Government organization established by Presidential directive to advise and coordinate federal departments and agencies on matters concerning the Global Positioning System (GPS) and related systems.

The National Executive Committee is chaired jointly by the Deputy Secretaries of Defense and Transportation. Its membership includes equivalent-level officials from the Departments of State, the Interior, Agriculture, Commerce, and Homeland Security, as well as the Joint Chiefs of Staff and NASA. Components of the Executive Office of the President participate as observers to the National Executive Committee, and the FCC Chairman participates as a liaison.

A National Coordination Office located in Washington, D.C., provides day-to-day staff support to the National Executive Committee. It consists of an interagency staff headed by Director Michael Shaw. The National Coordination Office is a point of contact for inquiries regarding PNT policy.

An Advisory Board provides independent advice to the National Executive Committee through its sponsor agency, NASA.

Several working groups support the National Executive Committee through staff-level, interagency

Get GPS status info and other user support at the **Navigation Center**

Learn more about the uses of space-based PNT at www.GPS.gov

National Executive Committee featured inP Inside GNSS

What's New at PNT.gov

- Presentations from GPS Partnership Council
- Request for Public Comments on Interim Codeless GPS
- Presentations from ENC-GNSS 2008
- Presentations from OGSIC Toulouse

More Releases...

PNT.gov



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