



SPACE-BASED POSITIONING
NAVIGATION & TIMING

NATIONAL COORDINATION OFFICE

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

*62nd Meeting of the Civil GPS Service Interface
Committee
20 September 2022*

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National Space-Based PNT Organization



- Defense
- Transportation
- State
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- Agriculture
- Commerce
- Energy
- Homeland Security
- ODNI
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- NASA

WHITE HOUSE
National Security Council / National Space Council /
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NATIONAL EXECUTIVE COMMITTEE FOR SPACE-BASED PNT
Executive Steering Group
Co-Chairs: Defense, Transportation

ADVISORY BOARD
Sponsor: NASA

NATIONAL COORDINATION OFFICE
Host: Commerce

Civil GPS Service Interface Committee
Chair: Transportation
Deputy Chair: Coast Guard

GPS International Working Group
Chair: State

Engineering Forum
Co-Chairs: Defense, Transportation

Ad Hoc Working Groups



U.S. Policy



The goal of [SPD-7] is to maintain United States leadership in the service provision, and responsible use of global navigation satellite systems (GNSS), including GPS and foreign systems.

- **Provide continuous, worldwide service free of direct user fees**
- **Encourage compatibility and interoperability with like-minded nations, promote transparency in civil service provisioning and enable market access for the United States industry**
- **Operate and maintain constellation to satisfy civil and national security needs and equip and train for the responsible use of GPS**
 - **Foreign PNT services may augment and strengthen the resiliency of GPS; however, the US Government does not assure the reliability or authenticity of foreign PNT services**
- **Invest in domestic capabilities and support international activities to detect, mitigate and increase resiliency to harmful interference**
- **Improve the cybersecurity of GPS, its augmentations, and United States Government-owned GPS-enabled devices, and foster private sector adoption of cyber-secure GPS-enabled systems**

Space Policy Directive 7 (SPD-7) of 15 January 2021



Updates and replaces U.S. Space-Based PNT Policy of 2004

- **Increased focus on protecting GPS and denying hostile use**
- **Incorporated principles of Responsible Use of GPS in Executive Order (EO) 13905**
- **Consistent guidance across the PNT policy ecosystem: SPD-7, SPD-5, EO 13905, National Space Policy**
- **Expanded EXCOM Membership**
 - **Added Departments of Treasury, Justice, Energy, and the Office of the Director of National Intelligence**
- **New direction: Protect the spectrum environment that is currently used by GPS and its augmentations**



SPD-7 Cont.



Describes EXCOM structure and tasks

- **The EXCOM is the interagency body responsible for guiding and preserving whole-of-government interests in the provision of space-based PNT services, augmentations, and space-based alternatives**
- **The EXCOM shall make recommendations on sustainment, modernization, and policy matters regarding the United States space-based PNT services to its member agencies and the President (through the Executive Office of the President (EOP))**
- **Ensure that national security, homeland security, and civil requirements receive full and appropriate consideration in the decision-making process**
- **Review PNT spectrum management and protection issues in coordination with the Department of Commerce**



Spectrum Protection: Background



- **FY21 NDAA chartered National Academy of Sciences, Engineering, and Medicine (NASEM) technical review of FCC order 2021**
- **NASEM issued notice on 16 Aug 2022 that it would release the report on 9 Sep 2022**
- **NASEM released a Study report on 9 Sep 2022**
- **National Telecommunications and Information Administration (NTIA) issued a press release on NASEM Study 9 Sep 2022**
- **The Department of Defense (DoD) issued a press release on NASEM Study 9 Sep 2022**
- **EXCOM issued a statement on NASEM Study 9 Sep 2022**



EXCOM Statement on NASEM Study

Slide 1 of 2



September 9, 2022

The National Space-Based Positioning, Navigation, and Timing Executive Committee (EXCOM) appreciate the study by the National Academies of Science, Engineering and Medicine (NASEM) committee on the important topic of interference to GPS capabilities, including those critical to national, homeland, and economic security.

The EXCOM, co-chaired by the Deputy Secretaries of the Departments of Defense (DoD) and Transportation (DOT), and with membership from over a dozen Departments and Agencies, supports the stated National Policy goal to protect the spectrum environment that GPS currently uses and its augmentations, including critical systems for Federal Government, the men and women of our Military Services, the economy, scientific advancements, and U.S. Critical Infrastructure.



EXCOM Statement on NASEM Study

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The EXCOM agrees with the statements by DoD and the NTIA about the NASEM study.

The EXCOM will review this lengthy study more carefully but agrees with the statements that our Nation requires a solution that ensures continued operations of critical systems. The study confirms that the GPS interference testing approach used by DoD and DOT, based on the signal-to-noise ratio, is more comprehensive and informative when done properly. In addition, the EXCOM agrees with NASEM's assessment that the proposed mitigation and replacement measures are impractical, cost prohibitive, and possibly ineffective.

The EXCOM looks forward to continuing to work with Departments and Agencies across America on this complex and important issue.



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GPS: The Global Positioning System

A global public service brought to you by the U.S. government

INFORMATION FOR THE GENERAL PUBLIC

How to Correct Your Address in GPS Devices, Apps, & Online Maps

Do GPS devices show your home or business in the wrong place? **The problem is not GPS!** It's the mapping software.

[Report your issue to the software providers](#)

Common Questions ➔

- How do I add or correct my address in GPS devices, apps, and maps?
- What can I do about trucks driving through my neighborhood?
- How do I report GPS service outages?
- Can GPS help me find my lost phone?

FOR GPS PROFESSIONALS

What's HOT for Pros

- **Ligado Networks and GPS**
 - National Academies report, Sep 9
 - EXCOM statement
- **Upcoming events**
 - CGSIC Denver, Sep 19-20
 - Public ICWG, Oct 26
- **Recent presentations**
 - Complementary PNT industry roundtable, Aug 4
 - Baska GNSS conference, May 9
 - PNT advisory board, May 4-5
- **Technical documentation**
 - 2022 ICD uprevisions
 - 2022 Interface revision notices
 - PRN assignments, Jun 2021
 - GPS SPS performance analysis
- **Funding & legislation**
 - FY23 GPS budget request
 - FY22 GPS funding & NDAA
- U.S. Space-Based PNT Policy of 2021