# National Space-Based Positioning, Navigation, and Timing (PNT) Advisory Board

26th Meeting Welcome & Introduction

ADM Thad Allen, Chair May 4, 2022

# **Opening Remarks: Organization & Recent Activities**

# Organization

- PNTAB established under presidential authority & operates per Federal Advisory Committee Act (FACA) provisions
- Members nominated by PNT EXCOM departments/agencies, approved by PNT EXCOM Co-Chairs, and appointed by NASA Administrator
- Charter allows establishment of ad-hoc task forces and subcommittees with appointed members & expert consultants as needed

#### Recent Activities

- On April 30, Charter for 2021-2023 signed by NASA Acting Administrator S. Jurczyk
- Expands membership ceiling from 25 to 30 in order to support expanded PNT EXCOM representation per SPD-7 (increases from 9 to 13 depts/agencies)
- Nine new members proposed/vetted by PNT EXCOM agencies and appointed by NASA Administrator B. Nelson
- 25<sup>th</sup> Session held Dec. 9-10, 2021, in Arlington, VA
- **Present:** 26<sup>th</sup> Session, May 4-5, Annapolis, MD
- Future: 27<sup>th</sup> Session circa November 16-17, Redondo Beach, CA

#### PNTAB Charter for 2021-2023

CHAPTER OF THE

NATIONAL SPACE-BASED POSITIONING, NAVIGATION, AND TIMING
ADVISORY BOARD

1. Official Designation: National Space-Based Positioning, Navigation, and Tuning Advisory
Board ("PNT Advisory Board").

2. Authority: The National Space-Based Positioning, Navigation, and Tuning Advisory Board
was stabilished permant to the National Security Positional (1975-199) of
Describer 15, 1004. In all most recently continued by Executive Order 13889: On humany 15.
Navigation, and Tuning Publish, "Impressed National Security Positional Reservices of the Reservices

agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Enformation Act, SUS. C. 523.

18. Filing Date: Since the Part Advisory Board: a Persidential sudnetty advisory committee, this Charter shall be effective as of the date of signature sented below, which is the fate of filing with the Committee Management Secretario of the U.S. General Services Administration and the U.S. Coegessional committees of jurisdiction.

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# **Establishment of Subcommittees**

- On March 24, 2022, six subcommittees established to support the work as authorized by the National Space-Based PNT Advisory Board Charter, Section 13 (Subcommittees and Task Forces),
  - "13. Subcommittees and Task Forces: As authorized by the DFO, the PNT Advisory Board work may be organized and supported by subcommittees, and/or task forces, to ensure taskings are appropriately completed in a timely manner in consultation with the PNT Board Chair or Vice Chair. In addition, NASA may authorize consultants with special expertise to support such subordinate groups on an ad hoc basis. Such subcommittees, and/or task forces, will be comprised of appointed PNT Advisory Board members and will report their findings and recommendations to the PNT Advisory Board Chair or Vice-Chair. Information classified for national security reasons may be provided to appropriately cleared members of the PNT Advisory Board to support the mission of the PNT EXCOM."
- The subcommittees are as follows, with subcommittee chairs & members organized through the expertise and interest of members on a volunteer basis as approved by the PNT Board Chairs:
  - Communications & External Relations (CER)
  - Education & Science Innovation (ESI)
  - Emerging Capabilities, Applications and Sectors (ECAS)
  - International Engagement (IE)
  - Protect, Toughen & Augment (PTA)
  - Strategy, Policy, & Governance (SPG)
- Subcommittee Chairs report to the PNT Board Chair (ADM Allen) and fellow designees (J. Stenbit, B. Parkinson, & J. Geringer), collectively known as the PNT Leadership Committee. PNT Board work is more effective with this org structure.<sup>3</sup>

# Subcommittees (1 & 2)

# COMMUNICATIONS & EXTERNAL RELATIONS (CER) SUBCOMMITTEE Members: Role/ Study Areas:

- Dana Goward, Chair
- Joe Burns, 1st Vice-Chair
- Eileen Reilly, 2nd Vice-Chair
- Sonia Alves-Costa
- John Betz
- Pat Diamond
- David Grossman
- Jeffrey Shane
- Greg Winfree

- Usan & industry
- *User & industry outreach*
- Messaging to U.S. public
- Inform & educate government stakeholders

# **EDUCATION & SCIENCE INNOVATION (ESI) SUBCOMMITTEE**

#### **Members:**

- Jade Morton, Chair
- Terry Moore, 1st Vice-Chair
- Dorota Greiner-Brzezinska, 2nd Vice-Chair
- Penny Axelrad
- Renato Filjar
- James Geringer
- Russ Shields

#### **Role/ Study Areas:**

- STEM & future PNT workforce
- GNSS science applications (radio occultation, surface reflectometry, natural hazards warning, etc.)

# Subcommittees (3 & 4)

## EMERGING CAPABILITIES, APPLICATIONS & SECTORS (ECAS) SUBCOMMITTEE

#### **Members:**

- Frank van Diggelen, Chair
- Penny Axelrad, 1st Vice-Chair
- Scott Burgett, 2nd Vice-Chair
- Renato Filjar
- Dorota Greiner-Brzezinska
- Matt Higgins
- Vahid Madani
- Tim Murphy
- Tom Powell
- Eileen Reilly
- Russ Shields
- Todd Walter

## **Role/Study Areas:**

- GNSS High Accuracy Services
- Intelligent Transportation Systems
- Integrated Energy Grid Concept
- Positive Train Control, Unmanned Aerial Systems, Comm. Networks, MEOSAR (Medium Earth Orbit Search & Rescue), Cislunar Service Volume

## INTERNATIONAL ENGAGEMENT (IE) SUBCOMMTTEE

#### **Members:**

- Matt Higgins, Chair
- Renato Filjar, 1st Vice-Chair
- Sonia Alves-Costa, 2nd Vice-Chair
- Terry Moore
- Jade Morton
- Jeffrey Shane
- Russ Shields

### **Role/Study Areas:**

- Interfacing with international community (ICG, etc.)
- Pursue GNSS compatibility & interoperability
- GNSS service & performance gaps vs. synergies
- Collaboration vs. competition

# Subcommittees (5 & 6)

## PROTECT, TOUGHEN & AUGMENT (PTA) SUBCOMMITTEE

#### **Members:**

- John Betz, Chair
- Tim Murphy, 1st Vice-Chair
- Tom Powell, 2nd Vice-Chair
- Penny Axelrad
- Scott Burgett
- Pat Diamond
- Renato Filjar
- Michael Hamel
- Larry James
- Vahid Madani
- Todd Walter

## **Role/ Study Areas:**

- Protect: Transparent & balanced spectrum management
- Toughen: Ensure ITAR does not unduly constrain civil & Commercial interests
- Augment: GDGPS, Complementary PNT, GNSS Signal Monitoring

## STRATEGY, POLICY & GOVERNANCE (SPG) SUBCOMMITTEE

#### **Members:**

- Jeff Shane, Chair
- Gary Thompson, 1st Vice-Chair
- Greg Winfree, 2nd Vice-Chair
- James Geringer
- Dana Goward
- David Grossman
- Michael Hamel
- Larry James

#### **Role/Study Areas:**

- PNT Policy implementation within Executive Branch
- Legislative solutions
- *U.S. interagency collaboration*

# **Summary**

- The PNT Board is an advisory committee that is focused on making GPS and related PNT systems & services more accessible, reliable, and robust for the benefit of the nation through coordination with the PNT EXCOM
- PNT Board membership is focused on keeping in sync and meshing emerging user needs with associated PNT provider service offerings as they continue to evolve to meet societal requirements
- The PNTAB will continue their important work on behalf of the PNT EXCOM and GPS User Community circa November 16-17 in Redondo Beach, CA (tentative)
- Observers and interested stakeholders of PNT Board work activities are encouraged to provide input & feedback to expert members on a continuous basis