# Troposphere Working Group

Sharyl Byram



#### **Overview of the TWG Charter**

- TWG Chair Dr. Sharyl Byram, Chief of the GPS Analysis Division, Earth Orientation Department, US Naval Observatory
- Assess/improve the accuracy/precision of IGS GNSS-based troposphere estimates.
- Improve the usability of IGS troposphere estimates.
  - Confer with outside agencies interested in the use of IGS products.
  - Assess which new estimates should be added as "official" IGS products, and which, if any,
    official troposphere product sets should be discontinued.
- Provide and maintain expertise in troposphere-estimate techniques, issues and applications.



### **Progress since last AM Meeting (Dec 2019)**

- Tropo Sinex v2.00 format finalized
  - Rosa Pacione and Jan Dousa leading
  - Supports:
    - Different Sources
    - Long Station Names from RINEX 3
    - Slant Delays
    - Long-term Time-series Station Parameters
- Tropo Comparison Interactive Website available for use
  - Christine Hackman and Jan Dousa leading



#### **IGS Goals**

Serving the community with facilitation, coordination, incubation, and advocacy in three strategic goals

Achieve Multi-GNSS
Technical Excellence

Strengthen Outreach and Engagement

Build Sustainability and Resilience





#### **Future Work**

- Tropo Sinex v2.00: Request IGS to formally adopt
- Updates to Tropo Comparision Website
- Next TWG meeting (virtual) in January 2022 (likely week of 24th)
  - Discussion of next projects for TWG, ideas solicited via survey sent out to mailing list a few weeks ago
    - Multi-GNSS estimates?
    - Reference ZTD used for climate science?
    - Expanded comparisons?
  - Discussion/nomination of Deputy Chair Position
  - Updating charter



IGS INTERNATIONAL GNSS SERVICE

## Thank You! Contact:

Sharyl Byram

sharyl.m.byram.civ@us.navy.mil