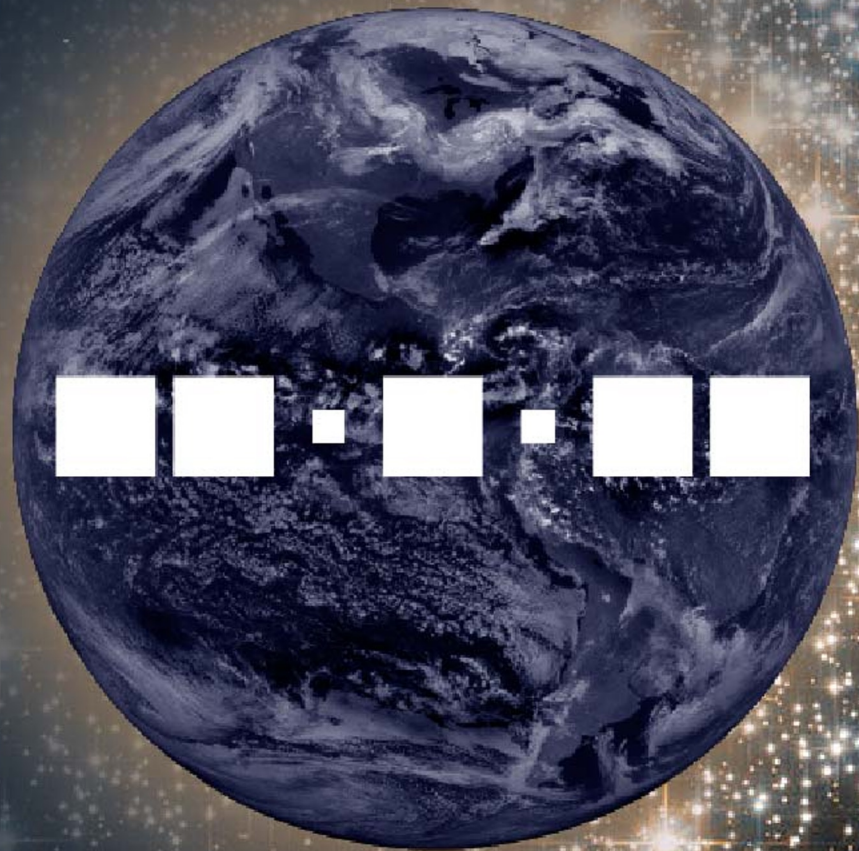




Troposphere Working Group

Sharyl Byram



IGS INTERNATIONAL
GNSS SERVICE

2022 Virtual Workshop
“Science from Earth to Space”

Session Information

Rapporteur:

Troposphere Working Group Chair

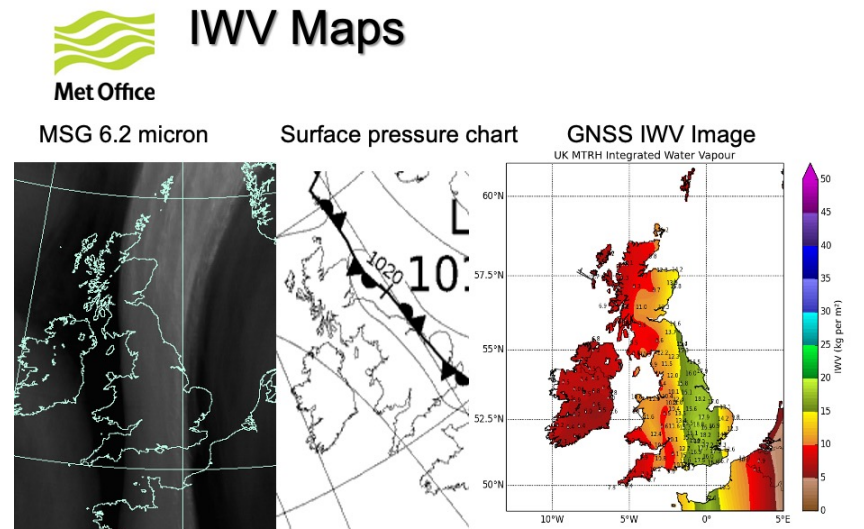
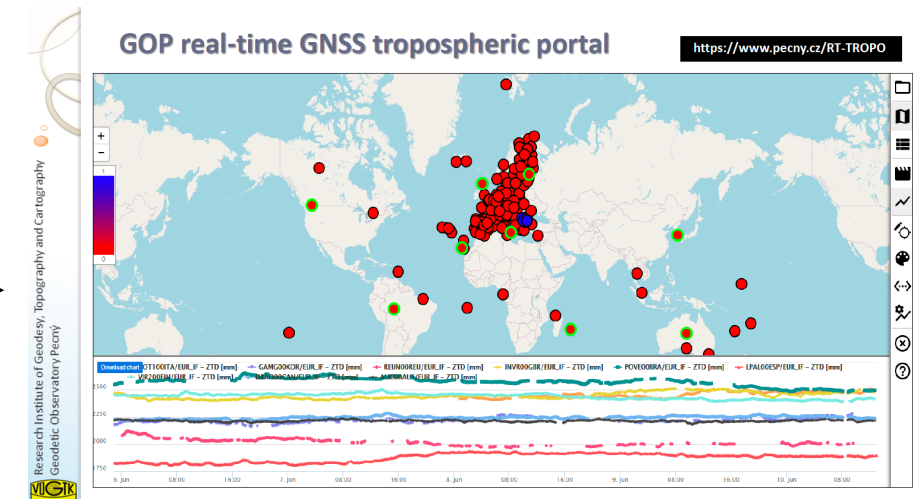
Sharyl Byram, US Naval Observatory

Participants:

- 50+ IGS Workshop attendees – Thanks for participating!

Discussion Highlights

- Presentations from members
 - Jan Dousa: **“Real-time troposphere monitoring at GOP”**
 - Jonathan Jones: **“GNSS Meteorology at the Met Office”**
- Working Group Presentation and Discussion
 - Charter updates via mailing list
 - IGS Final Troposphere Estimates: status report
 - Updates to FTEs
 - Looking Forward: Recommendations



Recommendations

- **Test newer troposphere models in final troposphere estimates**
 - GMF currently in use
 - Test VMF. Concern with discontinuities between 6 hr releases
 - Investigate other models as well
- **Repro 3 reprocessing**
 - Investigate suitability of Repro3 combination productions for tropo reprocessing
 - If suitable, begin troposphere Repro3 reprocessing and evaluation of quality
- **Multi-GNSS investigation**
 - Begin testing production and analysis quality of a Multi-GNSS final troposphere product
 - Quality analysis of combined observations as well as evaluate individual constellation inclusion

Major purpose in the IGS and in the greater geodesy community

Working Group Goals (from current charter)

- The primary goals of the IGS TWG are to:
 - 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.