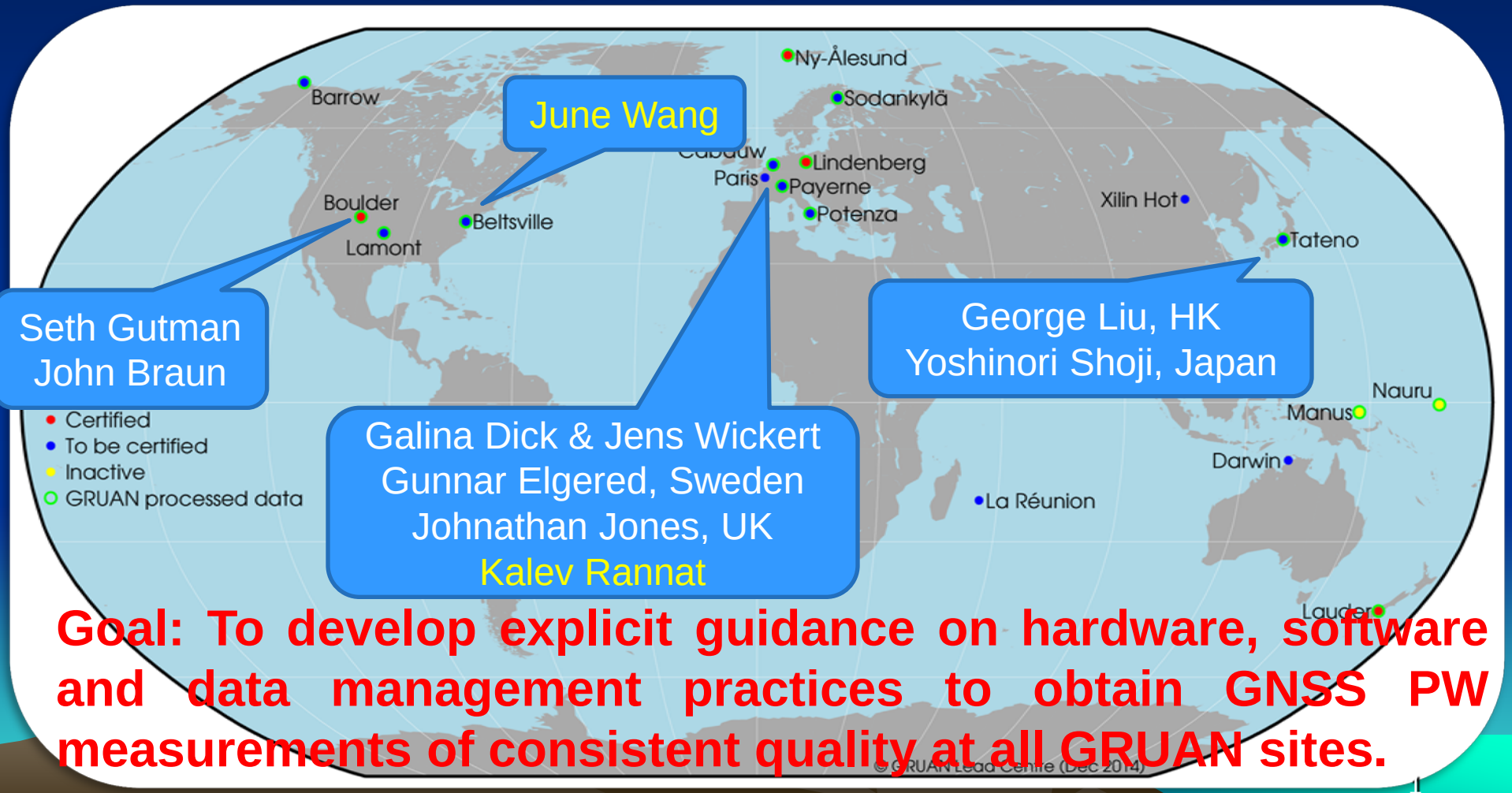
GRUAN GNSS Precipitable Water (GNSS-PW) Task Team:
10 members from 7 countries



Goal: To develop explicit guidance on hardware, software and data management practices to obtain GNSS PW measurements of consistent quality at all GRUAN sites.

GNSS PW related talks

- Session 2: 11:45 - 12:00 Task team progress report from TT GNSS-PW

- Session 5: Other GRUAN products 11:40 - 12:10 GNSS-PW progress – Markus Bradke

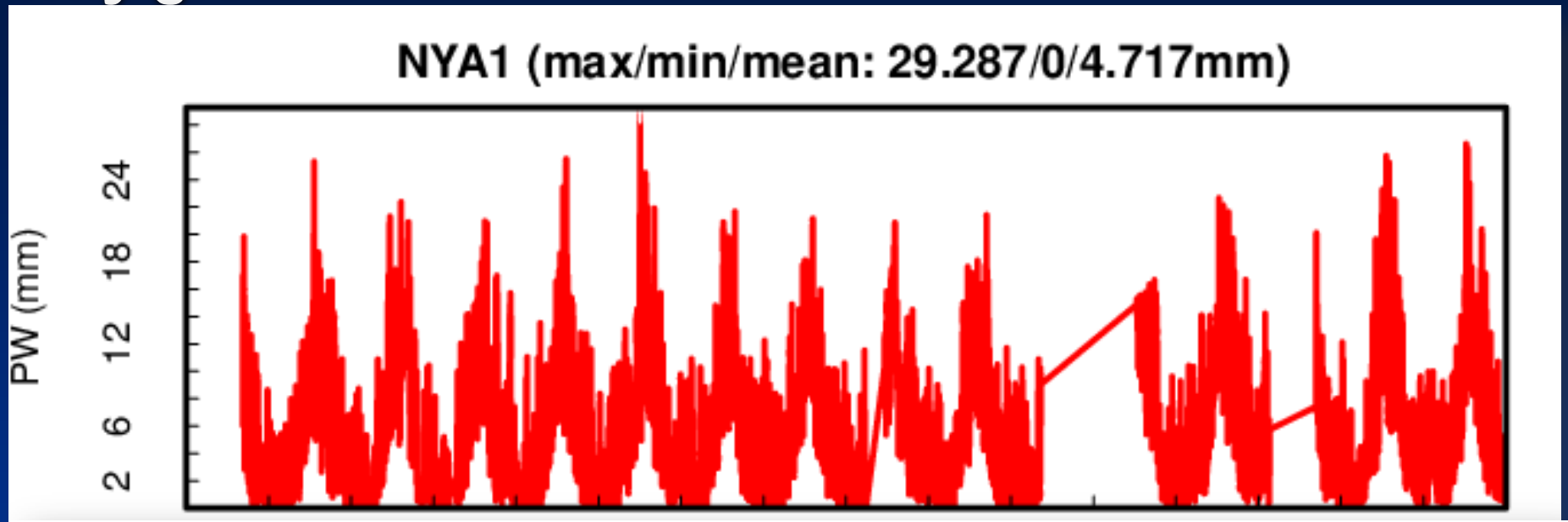
- Session 7: Extending GRUAN's reach 17:45 - 18:15 Collaborations in GNSS sphere with other projects (GNSS4SWC, EGVAP) – Rosa Pacione

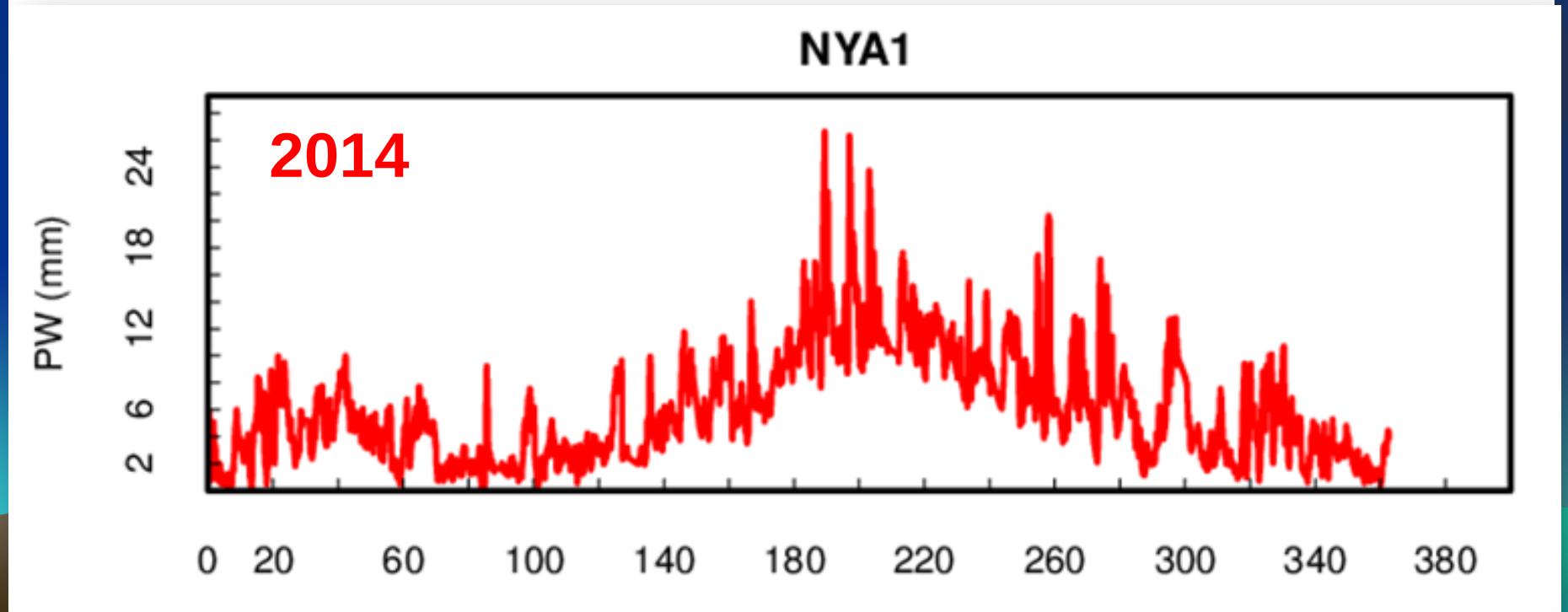
- Session 8: 14:05 - 14:25 GNSS Analysis for Climate Monitoring and Meteorological Applications at ASI/CGS, Matera - Rosa Pacione, Italian Space Agency

Why ground-based GNSS?

Site	Domes #	Lat	Long	Height (m)	Receiver	Antenna	Radome	Sat System
NYA1	10317M003	78.9294	11.8653	84	TRIMBLE NETR8	ASH701073.1	SNOW	GPS+GLO
NYAL	10317M001	78.93	11.87	82	TRIMBLE NETRS	AOAD/M_B	DOME	GPS

Why ground-based GNSS?





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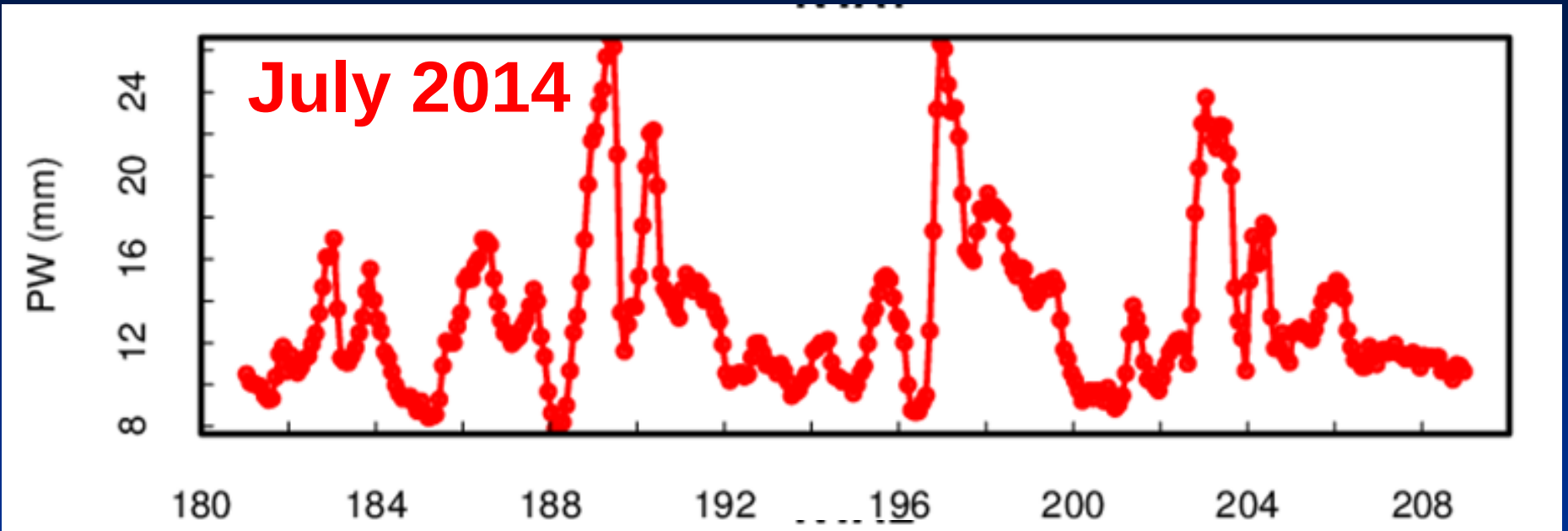
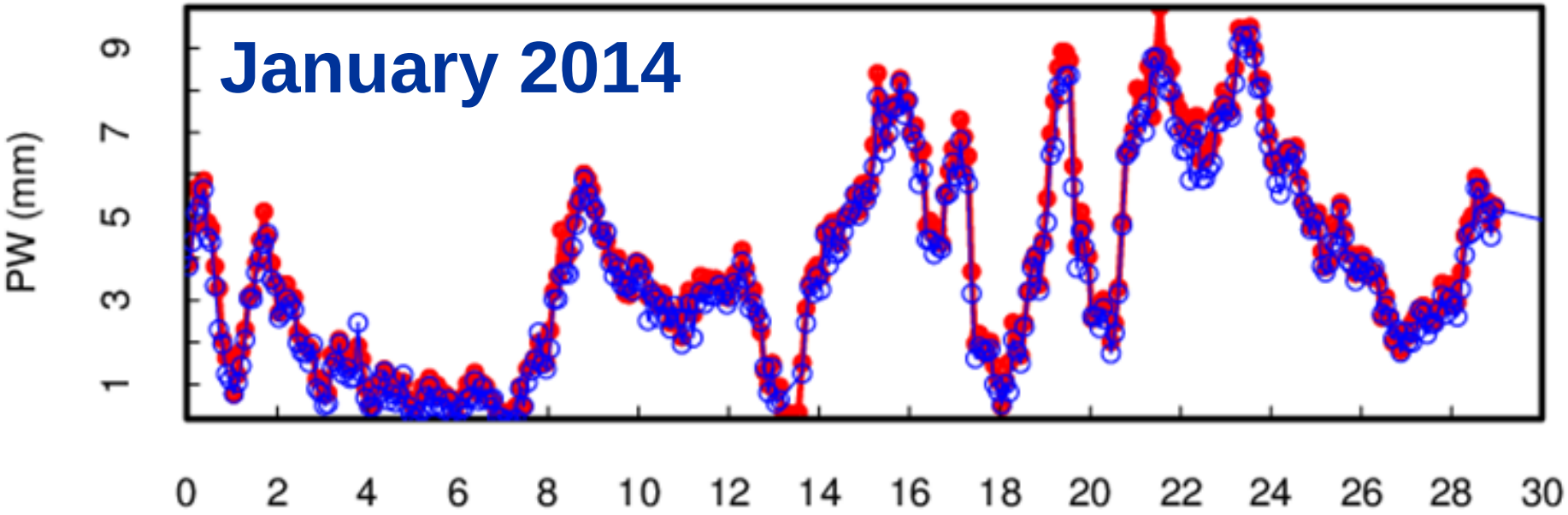
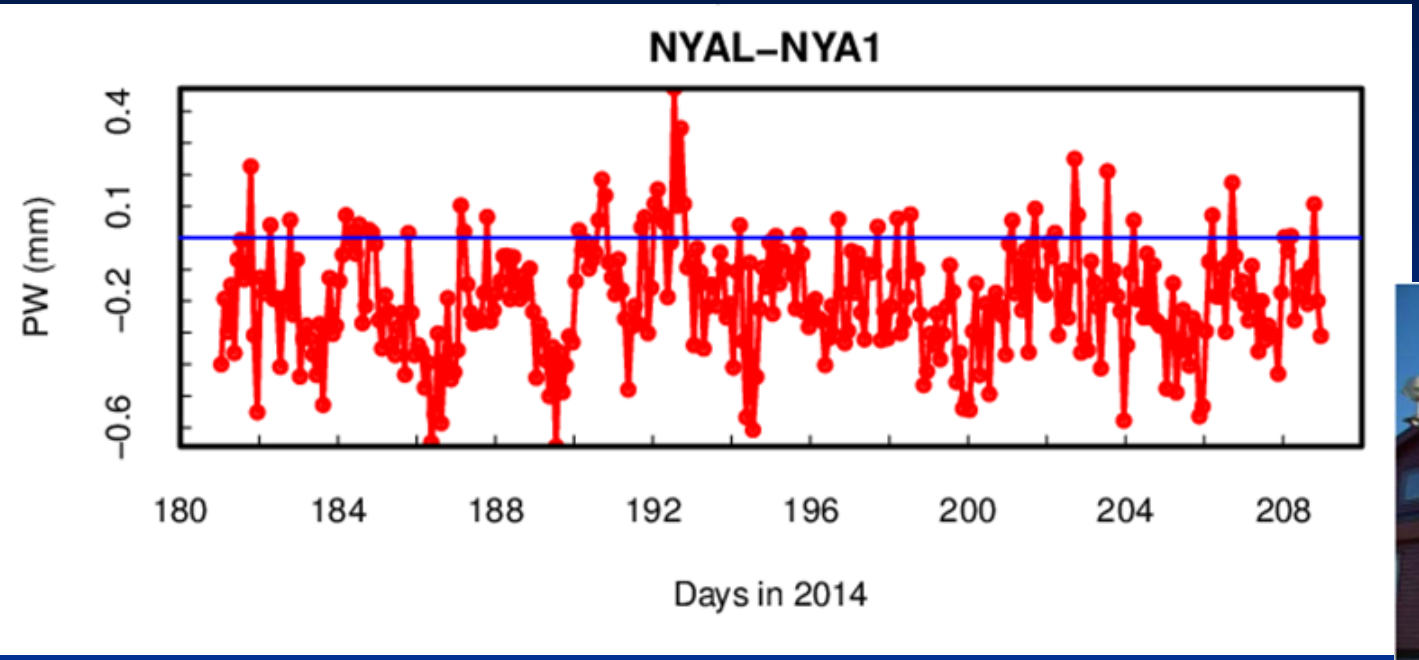
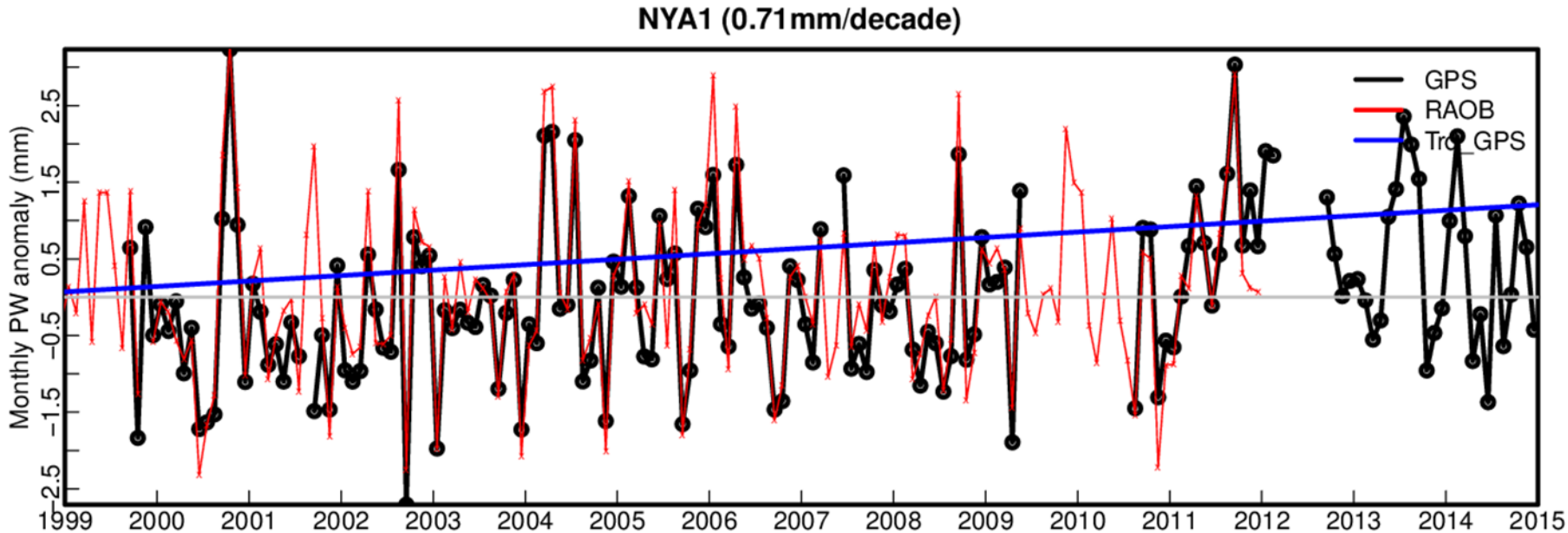




Why ground-based GNSS: Redundancy





Progress

1. ***New ToR: Move from "Define" to "Update" and "Implement"***
2. ***GNSS-PW Uncertainty Estimate: a draft is done, and submission by Sept. 2015 (Tong Ning, GFZ)***
3. ***A omnibus for GNSS-PW (Emma Scarlet)***
4. ***GNSS-PW data flow and processing (Markus Bradke, GFZ)***
5. ***Collaborations with GNSS4SWEC (Rosa Pacione)***
6. ***Research: Intercomparisons and Impact of PCO & PCV on PW estimation***

Future Work

1. Submit Uncertainty paper (Sept. 2015)
2. Work with GFZ on implementation of uncertainty estimation methods
3. GNSS data flow and processing (GFZ, LC and TT): Define data requirement & contacts for GNSS raw data
4. Assessment of data usage, issues and potential improvements for this data stream (Sept. 2016).
5. Update GNSS related technical documents (e.g. IGS “Tropospheric format update” Rosa P.)
6. Research: New GNSS capability (multi-GNSS systems), new software, new products, GNSS4SWC,

Challenges, Impediments and Helps

Momentum! Should we exist and what is next step?

Focused research topics, time and resources!

Funding and student helps