

Discussion site assessment, certification and expansion

Status

Site assessment team has only one chair and 5 regular members

Chair has for strong personal reasons not been able to put in the effort that we had hoped for

We have had difficulties in finding other strong leadership for this team

The concern exists that this task has not been and may not be as effective as hoped for

Proposal

Dissolve the site assessment team into the working group

Lead center communicates site criteria with potential and existing site

Lead center accepts and site proposals and reviews

Lead center prepares site evaluation

Working group reviews and decides on site applications and site assessments

Need

Solid and practical criteria to evaluate existing and prospective sites

GRUAN's philosophy

Focus on reference observations

Proposed criteria themes

Sites shall:

- Provide observations of reference quality
- Provide uncertainty estimates for each observation or collaborate with other sites to provide these estimates
- Provide complete meta data description
- Provide raw data or assure long term storage of raw data
- Provide ground checks independent of manufacturer (balloon in situ)
- Provide regular calibration information about their systems (in situ and remote sensing)
- Manage change pro-actively
- Provide redundant reference observations at regular intervals
- Actively conduct research to further develop this approach through intercomparison, laboratory studies and cooperation with manufacturer

Proposed criteria themes

Sites should:

- Provide twice daily observations for temperature (troposphere and stratosphere)
- Provide twice daily simultaneous observations for tropospheric water vapor
- Provide monthly observations for stratospheric water vapor
- Provide hourly observations of integrated precipitable water vapor
- Provide weekly redundant observations for temperature and (tropospheric) water vapor
- Cooperate with nearby sites to fill observational gaps

Proposed tier structure

Tiers reflect the different observational program

Tiers do not distinguish quality. The quality levels of the reference observations should be equal across all sites

Tier 1a: Weekly dual radiosonde, lidar, GPS

Tier 1b: Monthly stratospheric water vapor, GPS

Tier 2: Twice daily radiosonde, weekly dual radiosonde, lidar, GPS

Tier 3: All of the above