



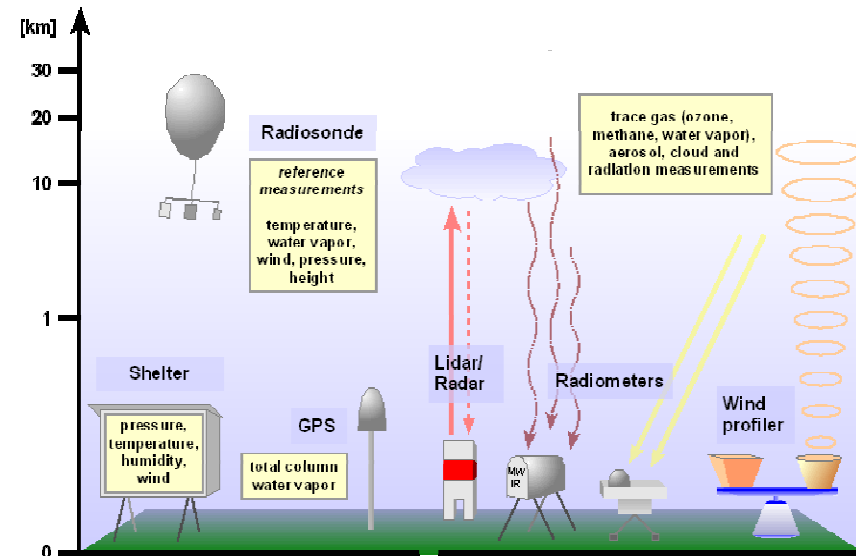
Defining GRUAN operations and GRUAN protocols

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- Maintain observations over decades
- Validation of satellite systems
- Characterize observational uncertainties
- Traceability to SI units or accepted standards
- Comprehensive metadata collection and documentation
- Long-term stability through managed change
- Validate observations through deliberate measurement redundancy



Priority 1: Water vapor, temperature, (pressure and wind)

Priority 2: Ozone, clouds, ...

- Guarantee that observations are consistent over long time periods
→ Require observational protocols
- Guarantee that observations are consistent across the network
→ Require observational protocols that apply to all sites
- Guarantee transparency of observations
→ Require detailed documentation of procedures so that changes in staff will not impact procedures
- Provide tools to be used in site assessment and certification

- Required protocols should not conflict with existing protocols of sponsors → Require consideration of adapting existing protocols
- Required protocols should not duplicate existing work, but rather build on it

Missing protocols:

- GRUAN specific radiosonde launch protocol
 - GRUAN specific data transmission and dissemination protocol
 - GRUAN specific frostpoint protocol
 - GRUAN change management protocol
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- Which ones do we need?
 - Who is best suited to write them?