

## What does it mean for the GRUAN network to become 'operational'?

Holger Vömel GRUAN lead center Meteorological Observatory Lindenberg DWD



Meteorological Observatory Lindenberg – Richard Assmann Observatory (2012)





- GRUAN entered the implementation phase with the establishment of the lead center at the DWD Meteorological Observatory Lindenberg in 2008
- Implementation phase was projected to take 5 years
- The GRUAN network is intended to become operational after the end of the implementation phase





- Provide long-term high-quality upper-air climate records
- Constrain and calibrate data from more spatiallycomprehensive global observing systems (including satellites and current radiosonde networks)
- Fully characterize the properties of the atmospheric column







- ✓ Is traceable to an SI unit or an accepted standard
- Provides a comprehensive uncertainty analysis
- ✓ Is documented in accessible literature
- Is validated (e.g. by intercomparison or redundant observations)
- Includes complete meta data description





- Implementation phase sets the direction for decades of observations
- Changes in observing system will happen
- GRUAN is at the interface of science driven research and routine operations

• Our task is to make sure that observations can be maintained at a consistently high quality over decades





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