

GCOS Reference Upper Air Network (GRUAN): An overview of GRUAN

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Records of upper air climate observations, be they from in-situ soundings, ground-based remote sensing instrumentation or satellites, are frequently limited in their usefulness to detect changes in climatically relevant atmospheric parameters owing to uncertainties arising from changes in instrumentation and practices. The GCOS Reference Upper Air Network (GRUAN) is a result of efforts over the last decade to instigate a reference quality network to ensure the future record. This network is currently implemented and accompanied by a number of research activities. Underlying the observational program is the definition of a reference measurement, which focuses on traceability, uncertainty analysis and extensive documentation and metadata collection. Consistency of redundant observations will be one of the essential tools to verify that observations are within the technological achievable goals and that changes in instrumentation and observational practices do not impact the ability to detect long term changes or to serve as anchor points to other global observational systems. This poster will give an overview of GRUAN and will present the context for the posters of the GRUAN poster cluster.