

Special Issue

The Global Climate Observing System (GCOS) Reference Upper-Air Network (GRUAN) and its Applications

Message from the Guest Editors

The Global Climate Observing System (GCOS) Reference Upper-Air Network (GRUAN) is an international reference observing network, built on existing observational facilities, carrying out ground-based remote sensing and airborne in situ atmospheric observations of essential climate variables. GRUAN's core principle is to ensure the comprehensive traceability of measurements and uncertainties, wherever possible to SI units. Spanning the atmosphere from surface to stratosphere, long-term high-quality GRUAN data are key to climate monitoring and atmospheric studies. Recently, GRUAN has achieved major landmarks with the transition from Vaisala RS92 to RS41 radiosondes, the release of a new data product for the Meisei RS-11G radiosonde, and the introduction of two new sites (Kowloon, Hong Kong and Dakar, Senegal) bringing the total number of sites across the network to 30. To mark these achievements, the open-access journal *Atmosphere* is hosting a Topical Issue to showcase current and future capability, latest products and developments, and latest science. Original results, review papers, and GRUAN-relevant studies and applications are all welcome contributions.

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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