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**15th GRUAN Implementation-
Coordination Meeting (ICM-15)**

Session 6

Bern

11 March - 15 March 2024

Task Team Progress Report for March 2024 – Radiosondes

(Submitted by Masatomo Fujiwara, Christoph von Rohden and the team members)

Summary and Purpose of this Document

Progress report from the task team on Radiosondes.

Summary

Good progress can be reported for the actual high priority task HP4.

Members

Members (13) of the TT Radiosonde, February 2024.

Name	Affiliation	Status
Masatomo Fujiwara	Hokkaido University, Japan	Co-chair
Christoph von Rohden	GRUAN Lead Centre, DWD, Germany	Co-chair
Frank Schmidlin	NASA Retiree, USA	
Hannu Jauhiainen	The Association of Hydro-Meteorological Equipment Industry; Vaisala, Finland	HMEI representative
Rigel Kivi	Finnish Meteorological Institute, Finland	
Masami Iwabuchi	Japan Meteorological Agency, Japan	
Yang RongKang	China Meteorological Administration, China	
Jean-Charles Dupont	Institut Pierre-Simon Laplace, France	
Sergey Kurnosenko	Scientific Software Consultant, USA	
Bruce Ingleby	ECMWF, UK	
David Edwards	Met Office, UK	
Gonzague Romanens	Meteoswiss, Switzerland	
Frédéric Vogt	Meteoswiss, Switzerland (DVAS for UAH2022)	

Changes in TT-RS membership: The TT co-chairs are communicating with some colleagues in the GRUAN community to recruit them as new members of the TT. There is also communication with some actual members who intend to terminate their membership.

Progress on the main tasks

The task list is based on Annex 3 “Agreed ICM-14 Actions” of the GCOS 250 Report of the 14th GCOS Reference Upper-Air Network Implementation Coordination Meeting (GRUAN ICM-14), <https://www.gruan.org/documentation/gcos-wmo/gcos-250>.

Task HP4: Justification for high ascent attainment

(Criteria to include NWP impact, seasonal predictability, importance of monitoring LS winds, radiative transfer calculations, satellite validation, climatology, etc.)

Main Contact: TT Radiosondes, IPET-OSDE

Milestone: Publication in the peer reviewed literature

Due Date: Journal paper submitted before ICM-15

Status: Manuscript “Justification for high ascent attainment for balloon radiosonde soundings at GRUAN and other sites”

Author team (led by Masatomo Fujiwara): Masatomo Fujiwara, Bomin Sun, Anthony Reale, Domenico Cimini, Lori A. Borg, Christoph von Rohden, Michael Sommer, Marion Maturilli, Holger Vömel, Rigel Kivi, Bruce Ingleby, Ryan J. Kramer, Belay Demoz, Fabio Madonna, Axel von Engel, Fabien Carminati, David Edwards, Noersomadi, Peter Thorne (*5 co-authors are members of TT-RS*)

Progress & Issues:

- TT-Radiosonde Online meeting 17 May 2023 with topic high ascent attainment
- Paper draft (to be submitted to AMT) has largely been written up, waiting for only one paragraph from a contributor.
- An intensive internal review process has already been ongoing, and it seems we may need a month or two before the paper submission.
- A presentation will be given for the latest contents and current status at ICM-15.

Task A7: Ozonesonde GDP progression

Description: Further progress ozonesonde GDP

Main Contact: Holger Vömel & Richard Querel, LC, TT radiosondes, TT sites

Due Date: Update at ICM-15

Status: No recent contribution from the side of the TT radiosonde. The TT is open for discussion at any time.

Activity: Standardise ground checks, pump efficiency measurement checks, continue on GRUAN TD and processing algorithm.

Task B8: Metrological closure of GNSS and radiosonde GDPs

Description: Formal metrological closure assessment of GNSS-PW and radiosondes

Main Contact: Holger Vömel & Richard Querel, LC, TT radiosondes, TT sites

Due Date: Submission to journal, Oct 2023

Status: The task is progressing with a number of issues still to be resolved. Intensive work still needs to be done, primarily by TT GNSS and GNSS. A joint meeting involving TT radiosondes and TT GNSS might be helpful. Alessandro Fassó with his expertise in statistics, on the background of his previous work on measurement co-location and related uncertainties, should be involved. According to information of Kalev Rannat, a 3-year project on this is going to be started (Olivier Bock).

Activity: Using the method of Immler et al. and the approach from Payerne in the Intercomparison to compare radiosonde GDPs.

Task C1: Radiosonde fundamental documentation

Description: Completion of radiosonde fundamental TD

Main Contact: Lead Centre, TT Radiosonde, Update at ICM-15

Status: No substantial progress can be reported on this task. A fundamental discussion (and decision) is needed as to whether such a document is still appropriate in the originally planned sense, and if so, who can continue the creation of the document, or how the work can be divided up. LC will support, but cannot take the lead due to the high workload with other tasks.

NOTE

In addition to the ICM-14 Actions for TT Radiosonde, several members of the TT were highly involved in the WMO UAI2022 Intercomparison campaign in terms of organization, preparation, implementation, evaluation of the results, reporting, reviewing (Frédéric Vogt, Gonzague Romanens, David Edwards, Bruce Ingleby, Christoph von Rohden)