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Coordination Meeting (ICM-8)**

Session 3

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Task Team progress report for March 2016 – Radiosonde

(Submitted by Masatomo Fujiwara and Rolf Philipona)

Summary and Purpose of Document

Progress report from the task team Radiosonde.

Task Team progress report for March 2016 – Radiosonde

SUMMARY

We have 4 main tasks and 4 additional tasks. We have been working very actively, and one of the main tasks “Assess controlled descent mechanisms...” resulted in a publication in AMT and is therefore completed. On other tasks we had to change the due date because we need more time to complete them. Unfortunately Holger Vömel is not any more a member of the task team radiosonde.

This table shows the current members of the team.

Name	Affiliation	Status
Masatomo Fujiwara	Hokkaido University, Japan	Co-chair
Rolf Philipona	MeteoSuisse, Switzerland	Co-chair
Ruud Dirksen	GRUAN Lead Centre, DWD, Germany	
Frank Schmidlin	USA	
Alexander Kats	Central Aerological Observatory/KOMET, Russia	
Hannu Jauhiainen	The Association of Hydro-Meteorological Equipment Industry; Vaisala, Finland	HMEI representative
Micheal Hicks	NOAA/NWS/OOS, USA	
Larry Miloshevich	MILO-Scientific, USA	
Rigel Kivi	Finnish Meteorological Institute, Finland	
Nobuhiko Kizu	Japan Meteorological Agency, Japan	
LI Wei	China Meteorological Administration, China	
Yang RongKang	China Meteorological Administration, China	
Martial Haeffelin	Institut Pierre Simon Laplace, France	

PROGRESS ON THE 4 MAIN TASKS

Task: *Assess time lag in Vaisala RS92 humidity corrections, comparing the GRUAN processing to other published approaches.*

Main Contact: *Ruud Dirksen with assistance from Michael Sommer, Larry Miloshevich, Masatomo Fujiwara and Alexander Kats*

Due Date: 31-Dec-2016 (changed)

Status: Ongoing

Milestone: Manuscript describing the results of the humidity time lag assessment submitted to a journal.

Progress: Test calculations were made by Larry Miloshevich and by Ruud Dirksen. Restarted in late 2014, after the publication of Dirksen et al. (AMT, 2014) on description of the GRUAN Vaisala RS92 data product version 2.

Issues: None.

Task: Assess the effects of the use of auto-launchers compared to manual launches on measurement uncertainty estimates for radiosondes.

Main Contact: Rigel Kivi, Nobuhiko Kizu, and Fabio Madonna

Due Date: 31-Dec-2016 (changed)

Status: Ongoing

Milestone: Publication in the peer reviewed literature.

Progress: Information has been summarized at Sodankyla (Kivi), Potenza (Madonna), and Tateno (Kizu). Still in the process to finalize the analyses.

Issues: None

Task: Assess controlled descent mechanisms for balloon payloads and issues around use of descent data

Main Contact: Rolf Philipona, Dale Hurst and Masatomo Fujiwara

Due Date: 29-Feb-2016

Status: A paper on this topic has been published in AMT in Feb 2016 and the task is therefore finished.

Milestone: Manuscript(s) detailing operational considerations for controlled descents submitted to a journal or detailed in a GRUAN Report. If deemed applicable, a technical document that supports the adoption of controlled descent across GRUAN.

Progress: Regular descent sounding are made at Boulder and Lauder. Some experiments were made at Lindenberg, Payerne, NCAR (and under a tropical project named SOWER). The results of two different methods have been published in a paper in AMT in February 2016.

Issues: paper available at <http://www.atmos-meas-tech.net/9/929/2016/>

Task: *Assess multi-payload launch configurations for GRUAN usage.*

Main Contact: *Hannu Jauhiainen and Masatomo Fujiwara*

Due Date: *31-Dec-2016 (changed)*

Status: *Ongoing*

Milestone: *Document detailing the issues surrounding multi-payload soundings to be drafted and submitted either to peer reviewed literature (first choice) or to WG-GRUAN for review as a TD*

Progress: *A draft manuscript is being prepared and send around for comments; various options and their pros and cons are described there.*

Issues: *The manuscript has recently been send in a second round. It may first be published as a GRUAN report.*

NOTES ON THE 4 OTHER TASKS

(The primary contact for these tasks is the Lead Centre. The Task Team Radiosonde is to help and support the Lead Centre's work.)

Task: *Define the non-RS92 data collection client requirement, identify the central data processing facility, and initiate data flow.*

Milestones: *Assessments of non-RS92 data collection client requirements. Data flow through NCDC portal*

Task: *Develop a UT/LS water vapour data product supported by appropriate technical documentation. The technical documentation must account for operation of CFH, NOAA FPH, Snow White and possibly FLASH-B.*

Milestone: *Technical documentation completed for frostpoint hygrometer measurements. Peer reviewed publication on frost point hygrometer GRUAN data product submitted.*

Issues: *Holger Vömel has submitted a manuscript on the uncertainty of the CFH sensor, which is presently under discussion in AMTD.*

<http://www.atmos-meas-tech-discuss.net/amt-2016-44/amt-2016-44.pdf>

Task: *Finalize the definition of GRUAN data products for RS92 radiosondes: Technical document describing pre-launch procedure (TD5)*

Milestone: *Review of the pre-launch ground-check/ground-calibration procedures*

Task: *Define the ozonesonde data collection client requirement, identify the central data processing facility, and initiate data flow.*

Milestone: *Data flow through NCDC portal. Assessment of data usage, issues and potential improvements for this data stream.*