

Task Team progress report for January 2012 - **Radiosonde**

SUMMARY

Review of the WMO Intercomparison report has been done. Some other tasks were in progress. One of the two co-chair positions is still vacant; a new person came to the Lead Centre in January 2012 as the replacement of Immler, and at ICM4 we will ask him to participate in the team (the WG-ARO co-chairs suggested us to proceed slowly).

PROGRESS ON TASKS REPORTED ON THE PREVIOUS REPORT

Task (1): Review of the WMO Intercomparison report

Main Contact: Miloshevich and Philipona **Due Date:** End of 2011 **Status:** Document done

Milestone: Lessons from the WMO report are summarized, and review is made from the GRUAN viewpoints

Progress: Review document is created; will ask WG-ARO etc. for comments

Issues: Will this be a GRUAN Technical Document (TD)?

Task (2): RS92 pre-launch procedure

Main Contact: Fujiwara **Due Date:** ICM-4 **Status:** under work

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

Progress: Immler and Miloshevich prepared a document as TD5; review will be made within the task team soon.

Issues: Missing perspective in TD5 is to gather information from all relevant GRUAN sites. This task will be relevant to the issue on the GRUAN surface observation requirement.

Task (3): RS92 data product document

Main Contact: (Fujiwara) **Due Date:** --- **Status:** partly done?

Milestone: Lead Centre prepares a document, TD4

Progress: TD4 had been prepared, and review was made by some WG-ARO members

Issues: TD4 is a simple documentation on the file format, information content, etc.

We need another document to describe the detailed information how the "GRUAN RS92 data product" is created and to explain the uncertainty estimation method for this product. For this purpose, we will also need a project to intercompare Vaisala RS92 data product and GRUAN product or even to validate the GRUAN product. Lead Centre will lead these projects, and our task team will review them or even participate in them.

Task (4): Use of descent data and control descent

Main Contact: Philopona, Hurst et al. **Due Date:** ICM4 **Status:** Under work

Milestone: The use of descent data and controlled descent for GRUAN sounding is discussed in a document

Progress: Regular descent sounding is made at Boulder and Lauder. Some experiments were made at Lindenberg, Payerne, NCAR (and under a tropical project named SOWER).

Issues: Still in the experimental phase. Brief report and offline discussion will be made at ICM4

Task (5): Multi sounding configuration

Main Contact: Jauhiainen **Due Date:** ICM4 **Status:** Under work

Milestone: *Recommendation for the multi sounding configuration is made for GRUAN*
Progress: *A questionnaire will be sent to several researchers/engineers very soon to gather the information on their multi- sounding experiences*
Issues: *Need more time to prepare a document and to review it within the team*

Task (6): *RS92 auto-launcher influence*

Main Contact: *Kivi et al.* **Due Date:** *ICM4* **Status:** *Under work*

Milestone: *Influence/effects of using the auto-launcher system is documented*

Progress: *Information is being summarized at Sodankyla (Kivi), Potenza (Madonna), and Tateno (Kizu)*

Issues: *Report will be made at ICM4 in the site report session; offline discussion will be made for a summary document.*

Task (7): *Chilled-mirror hygrometer data product document*

Main Contact: *Voemel, Hurst, Philipona, Fujiwara* **Due Date:** *End of 2011*

Status: *Under work*

Milestone: *A GRUAN Technical Document is prepared, which include the information on the uncertainty estimation method*

Progress: *A document is being prepared.*

Issues: *Hurst will have a time slot for presentation at ICM4; offline discussion will be made at ICM4.*

Task (8): *Time-lag correction issues (including intercomparisons) for RS92 RH measurements*

Main Contact: *(Fujiwara), Kats, Miloshevich* **Due Date:** *End of 2011*

Status: *Not yet started*

Milestone: *Various time-lag correction schemes will be compared to create the best correction scheme for GRUAN*

Progress: *Not yet started*

Issues: *This task is considered to be included/merged in the task on RS92 data product document (see Task (3)). We also need representatives for the GRUAN correction and the Vaisala correction to make the RH intercomparison to be complete. (Note: For future reference, the comparison method will need to consider whether the time-lag correction is done before or after other corrections such as T and RH radiation corrections.)*