

# WMO/IOC/UNEP/ICSU GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)

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**5th GRUAN Implementation- Coordination Meeting (ICM-5)** 

Session 2

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# **Lead Centre progress report 01/2013**

(Submitted by GRUAN Lead Centre)

# **Summary and Purpose of Document**

Progress report from the GRUAN Lead Centre covering the period 08/2012 to 01/2013.



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# **GRUAN Lead Centre progress report 01/2013**

covering the period 08/2012 to 01/2013

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# **Summary**

The GRUAN certification of the site at Ny Alesund was the first to be completed by the Working Group and the Lead Centre. The sites at Lindenberg, Cabauw and Lauder are currently going through the certification process following the procedures established in the first certification.

Progress has been slowed down to due staffing shortages.

The GRUAN Lead Centre has participated in several conferences and workshops.

Preparation of ICM-5.

#### **Health of network**

No update from last report.

# Progress against stated objectives

Open items	Summary of progress
2. Discuss with Task Team chairs and WG-GRUAN members how to proceed on creation of metadata task (metadata that is not necessarily instrument specific, but necessary for complete understanding; ensuring metadata consistency between data streams). Report via the blog. (Sep 2012)	Terms of references have been drafted and commented. One Lead Centre staff will be member of this Task Team.
3. To process 4 or more sites with a focus on those who may benefit from early certification to undertake certification. Work with TT site representative co-chairs in this. (ICM-5)	The site application for Ny Alesund has been completed and the site has been formally certified. The application for the site Lindenberg has been handed in to the WG-GRUAN. The application materials have been sent to the representatives of Cabauw and Lauder. The application material is being



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	completed by Cabauw and should be passed on to the WG-GRUAN prior to ICM-5. Completing the application material by a Lauder representative is on hold until that position has been filled.	
4. RS92 pre-launch documentation to be revised and submitted as a TD by the summer (Sep 2012)	The completion of this task has been delayed due to staffing shortage at the Lead Centre.	
5. Assessment of RS92 (and others?) time lag humidity corrections, comparing the GRUAN processing to other published approaches to be undertaken and submitted to a journal (ICM-5)	The task is in progress. Comparisons of the time lag correction with that by Miloshevich have taken place. The completion of this task has been delayed due to staffing shortage at the Lead Centre.	
17. Post online monitoring reports, graphics etc. and link from the NCDC ftp area to make aspects more accessible to the end users. Also link to a (still under development) 'GPROVS' portal. (Oct 2012)	Monitoring reports are being created for all sites, but have not yet been made available for common use. Monitoring reports will be refined to show site specific issues as well as processing specific issues (currently in progress). The completion of this task has been delayed due to staffing shortage at the Lead Centre.	
18. Work with sites not launching RS92 to further development of the processing streams for their standard radiosondes. Report at ICM-5 on progress. (ICM-5)	The Lead Centre is working with the site at Payerne to include the raw data stream into the GRUAN data flow and to support the site in the development of a GRUAN processing for the Swiss radiosonde. The radiation experiments that were performed at Lindenberg have been analyzed and show the principal equivalency of the correction derived at Payerne and measured at Lindenberg.  Discussions with CMA about the preparation	
	of a Chinese made radiosonde have started. The Lead Centre is working with the site to overcome some initial obstacles.	
21. Work with CIMO / HMEI to discuss how best to incorporate a GRUAN invited talk / talks / town hall / other as appropriate presence at the TECO meeting in Brussels in the autumn of 2012 to allow discussions with	A GRUAN keynote talk was given at the TECO meeting by a Lead Centre representative. Discussions with Vaisala, Graw, Intermet, and Modem took place.	



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manufacturers. (Aug 2012)

#### **Achievements**

- Ny Alesund was the first site to pass the GRUAN certification. As part of the
  certification process, standardized application material and instructions were
  developed to help sites in the completion of the application and the guide the
  Working Group in its evaluation. This application material was sent to the sites at
  Lindenberg, Lauder and Cabauw. Discussions with site representatives are ongoing
  to refine the application process. The site at Lindenberg has completed its application
  and sent it to the Working Group.
- All Vaisala RS92 raw data collected so far have been reprocessed as Version 2 of the GRUAN data product (RS92-GDP v2). This reprocessing included some bug fixes of the GRUAN processing routines, a change in the radiation correction for the humidity measurements and slightly changed rejection criteria for the acceptance of data.
- Processing of data from the ARM sites has been improved from irregular batch processing to near real time processing and is now available at NCDC.
- In cooperation with the Table Mountain Observatory of JPL the Lead Centre have started a development of a LidarRunClient. This program will support lidar stations in the collection of raw data and standardized metadata.
- During a meeting between the Lead Centre and the Geoforschungszentrum Potsdam (GFZ) the GRUAN principles were discussed in relation to GNSS measurements of integrated precipitable water vapor. GFZ expressed interest in acting as processing center for GRUAN GNSS IPW observations. This issue is being discussed in the GNSS task team.
- In January a meeting took place between the Lead Centre and Environment Canada in Toronto. GRUAN principles were discussed and the possibility of bringing in one or several EC sites into GRUAN. No actions were taken. A follow up is needed.
- The Lead Centre has participated in the preparation of ICM-5.
- The Lead Centre participated in the second workshop on the GEWEX water vapor assessment

#### **Lead Centre operations**

 The Lead Centre operations have been impacted by staffing shortages through parenting leave, voluntary work time reductions, and additional tasks placed on the staff within the observatory.

#### Issues

The status of the site at Lauder is uncertain. Due to staffing reductions at the site, the
past GRUAN representative was terminated. A new person is being hired by NIWA,
who is expected to take over this role. The impact of this change will be looked at as



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part of the site certification.

 Progress in the development of the frostpoint GRUAN data product and the ozone product have been slowed down due to lack of resources.

# Work plan for next six months

- Completion of Cabauw and Lauder site certification application
- Completion of the GRUAN RS92 data product documentation
- First draft of the frostpoint GRUAN data product documentation
- First draft of the ozone GRUAN data product documentation