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**4rd GRUAN Implementation-
Coordination Meeting (ICM-4)**

Session 1

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GRUAN Lead Centre progress report 01/2012

(Submitted by Holger Vömel)

Summary and Purpose of Document

This document contains the GRUAN Lead Centre progress report covering the period 08/2011 to 02/2012.

<p>GRUAN Lead Centre progress report 01/2012 covering the period 08/2011 to 02/2012</p>	
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<p>Summary The data of the ARM sites are incrementally included into the data processing stream. The lead centre had one change in personnel. Several new software tools and upgrades have been developed. The application process for three new sites is being actively supported. The GRUAN Lead Centre has participated in several conferences and workshops. Preparation of ICM-4 as well as the upcoming network design workshop.</p>	
<p>Health of network The amount of data is slowly increasing and a continuation of this increase is to be expected. For long term operations the amount of documentation has to increase as well.</p>	
<p>Progress against stated objectives</p>	
<p>Open items</p>	<p>Summary of progress</p>
<p>3. Prepare generic poster and PowerPoint presentation to be used in promoting GRUAN within the scientific community.</p>	<p>Done. This material has been posted on www.gruan.org.</p>
<p>5. The site representation team will collect acknowledgement requirements from sites. Agree and implement data usage acknowledgement protocol. (Sep 2011)</p>	<p>In progress. Request for requirements was sent out and replies are being collected by Greg Bodeker.</p>
<p>6. NCDC should consider the role of repository for raw data and data not yet congruent with GRUAN standards in</p>	<p>For the existing GRUAN data stream there is not yet any need to store raw data at NCDC. For sonde related data streams that may</p>

addition to GRUAN data products. Lead Centre will advise NCDC on needs. (Oct 2011)	come online in the near future no storage issue is expected. For other systems, the definition of raw data has yet to be completed.
7. Update the inventory of GRUAN site instrumentation in form of a matrix of current site capabilities. (Oct 2011)	Requests for information had been sent out to the sites and replies have been collected at the Lead Centre. A suitable matrix is currently being compiled and will be distributed through the GRUAN web site.
9. NCDC to consider viability to place a voluntary user registration on data usage making clear the benefits of being made aware of periodic reprocessing and likely impacts. Report to WG-ARO by October 2011.	Included on the GRUAN Lead Centre website at www.gruan.org
10. Develop a collection of material, which may be used in proposals by sites to get funding. This collection of material is to be started on the GRUAN blog. (Oct 2011)	To be started.
11. Work with HMEI to scope possible workshop aims and requirements and discuss whether CIMO involvement etc. makes this redundant. Possibility of meeting manufacturers at AMS. (Oct 2011)	Initial discussions have happened. A more detailed discussion has to occur at ICM4.
12. Integrate GRUAN observations in the NOAA Products Validation System (NPROVS.) (Oct 2011)	GRUAN data have been tested in NPROVS on testing basis. Routine inclusion is currently in preparation.
13. Explore possible avenues to set up a trust fund in support of targeted GRUAN activities. (Dec 2011)	Not yet started.
14. Circulate relevant documents to communities likely to be users of GRUAN products to ascertain whether these data products meet their needs. (Dec 2011)	Relevant documents do not yet exist and have to be written. Experiences with the use of GRUAN data are currently assessed within the GRUAN community. Further discussions of the needs of GRUAN data users should happen within the frame of the scheduled network expansion workshop.
16. Complete the GRUAN Manual of Operations in liaison with Task Teams; final version to be approved by WG-	In progress. Contract to complete the manual is in place.

ARO, Lead Centre and 2/3s of all sites.	
17. Assessment and certification criteria to be fleshed out by WG-ARO, Lead Centre, in consultation with sites representatives. Draft for adoption in time for ICM-4.	Completed.
19. Protocol for acceptable instrument change-over as section in manual to cover generic change criteria.	In progress. To be discussed at ICM4.
20. Include a section in the manual on how to move from priority one to priority two climate variables.	In progress. To be discussed at ICM4.
23. Formulate requirements on surface observations in support of upper-air observations.	To be started
27. Formulate generic guidance on collocation based upon quantitative evidence wherever available, for priority one variables. Includes a toolbox and paper for submission.	Open
28. Investigate and design a system to report and resolve problems in data quality and instrument issues.	A first tool for reporting and detecting data quality issues has been designed at the lead centre.
29. Implement final version of the GRUAN data dissemination structure.	The GRUAN data dissemination structure has been decided on and has been implemented.
<p>Achievements</p> <ul style="list-style-type: none"> • Data from four ARM sites are currently being included into the data processing stream. These data include a number of changes and updates and are therefore made available as beta version on a local DWD site. Once all sites are being switched over to version 2 processing, the ARM data will become part of the regular data stream. ARM data from Nauru and Manus for the year 2011 have already been processed and processing of these data is ongoing. The data from Darwin currently do not include raw data (DC3DB files) and therefore these observations cannot currently be processed using the GRUAN procedures. • The WMO World Climate Research Program Open Science Conference, which was held in Denver, CO, from 24 through 28 Oct 2011, included a GRUAN poster cluster, in which 12 different studies and projects directly related to GRUAN were presented. This poster cluster was coordinated by the lead centre. • After the presentation of GRUAN at the NDACC symposium the NDACC steering committee requests a GRUAN representative to be member of the NDACC steering committee. 	

Lead Centre operations

- One member of the lead centre has left DWD at the end of September 2011. This position was refilled by 2 January 2012. Lead centre operations have been severely slowed down due to this transition, but are slowly recovering to normal speed.
- A new version 0.4 of the RsLaunchClient has been released and has been distributed to all the sites in January 2012.
- A reporting tool, which provides an overview of all data received at the lead centre has been developed and is currently being tested. Sites providing data will receive summaries of their submissions by ICM-4.
- The site at Ny Alesund, which is managed by the Alfred Wegener Institute for Polar and Marine Research (AWI), Germany, in cooperation with the French Polar Institute Paul Emile Victor (IPEV) has expressed interest in joining GRUAN. Negotiations with this site have been completed and a site application has been received. This site is being recommended as new site in GRUAN.
- The sites at Sirta and La Reunion Island, France are being proposed as new sites for GRUAN. Negotiations are ongoing. A representative for these sites has been invited to attend ICM-4 and to present the status and plans for these two sites.
- Presentation of GRUAN at the NDACC symposium at La Reunion from 6 through 10 Nov 2011.
- The lead centre has participated in the GCOS/WIGOS/CBS Expert Meeting on GRUAN Observing Practices and Governance and provided input from the lead centre perspective.
- The lead centre actively cooperated with the ancillary measurements task team and supports their activities in the preparation of the lidar client, which is designed to standardize and collect Raman lidar data for water vapor vertical profile observations.
- The lead centre has participated in the preparation of ICM-4.
- The lead centre has prepared the local logistics for the network expansion workshop, which is scheduled to take place at Fürstenwalde between 14-16 June 2012.

Work plan for next six months

- Writing the report for ICM-4
- Preparing for the network design workshop at Fürstenwalde
- Preparing for the 9th International Temperature Symposium
- Supporting candidate sites in their process to become GRUAN stations
- Developing of new data products