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GLOBAL CLIMATE OBSERVING
SYSTEM (GCOS)

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

Session 2

De Bilt, Netherlands
25 February – 1 March 2013

GRUAN Work Plan 2012-2013

(Extracted from GCOS-161)

Summary and Purpose of Document

The final session of ICM-4 agreed on a specific GRUAN work plan for the forthcoming year based on the preceding discussions. These discussions showed that a few action items in the previous list of action items had been either ambiguous or far too detailed and that wording had not been sufficiently clear on who had to do what. Care needs to be taken to guarantee that the actions are properly described, documented and tracked.

To address this issue, only significant ICM-4 to ICM-5 actions are recorded in the following work plan. Minor action items are listed following the work plan, but will be documented and checked separately by the WG-GRUAN co-chairs.

9. GRUAN Work Plan

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To address this issue, only significant ICM-4 to ICM-5 actions are recorded in the following work plan. Minor action items are listed following the work plan, but will be documented and checked separately by the WG-GRUAN co-chairs.

9.1. 2012-13 GRUAN Work Plan

No	Action	Deadline	Who
1	Set up an online repository of all actions, whether they rise to work plans, within year report commitments or Implementation Plan items. Community owned. Managed by WG-GRUAN chairs.	May 2012	WG-GRUAN chairs (Bodeker)
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	Lead Centre, WG-GRUAN chairs (Bodeker)
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	Lead Centre, WG-GRUAN, TT site representative co-chairs
4	RS-92 pre-launch documentation to be revised and submitted as a TD by the summer	Sep 2012	Lead Centre (Dirksen as lead) and the Radiosonde Task Team
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 (R. Dirksen, M. Sommer, H. Vömel L. Miloshevich, A. Kats)	ICM-5	Lead Centre (Dirksen as lead) and the Radiosonde Task Team
6	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	Sep 2012	Task Team Radiosondes (Jauhiainen lead)
7	Assessment of auto-sounder influence vs. manual launches to be written up and submitted to the peer reviewed literature	Sep 2012	Task Team Radiosondes (Kivi, Kizu lead)
8	Provide the theoretical basis for GRUAN uncertainty estimates for GNSS-PW. Submission to peer reviewed literature.	ICM-5	TT GNSS (co-chairs as lead)
9	Report on discussions with LC and others on starting the GNSS-PW data flow. Data collection client requirement? Central processing facility?	ICM-5	TT GNSS (co-chairs as lead)
10	Develop and publish online tools using the NPROVS system to visualize the GRUAN products (incl. uncertainty) and collocated satellite data (GPROVS?) and possibly SASBE products.	Dec 2012	TT Ancillary measurements (Reale, Vose, Tobin Dykema lead)

11	GRUAN Lidar Technical document (incl. all species) submitted for WG-GRUAN review.	Oct 2012	TT Ancillary measurements (Leblanc lead)
12	Complete the matrices of measurements started and try to be as detailed as possible taking into consideration new updates, changes, etc. available at the gruan.org web site.	May, 2012	TT Site representatives (Hurst lead, Demoz)
13	Collocation. Identify if the instruments at a site are collocated or distributed and details of the distribution (distance, ownership, etc). Include maps etc.	ICM-5	TT Site representatives (Demoz lead, Hurst)
14	Submission of a peer-reviewed paper about the topic "Quantify the value of complementary measurement"	ICM-5	GATNDOR (Madonna lead)
15	Peer-reviewed paper about the topic "Co-location of observations" with an emphasis of how to account for mismatches in quantifying and comparing uncertainties.	Submitted by ICM-5	GATNDOR (Fasso lead)
16	Development of initial frostpoint hygrometer product and associated technical document. Initial data and advanced draft of technical document available for consideration at ICM-5.	ICM-5	Vömel, Hurst
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	Lead Centre (Sommer lead)
18	Work with sites not launching RS-92 to further development of the processing streams for their standard radiosondes. Report at ICM-5 on progress.	ICM-5	Lead Centre (Vömel lead)
19	Create a formal amendment to the Implementation Plan. To cover through 2016. To be submitted by September 1st to GCOS (AOPC) for consideration as a GCOS report. Owners: WG-GRUAN co-chairs.	ICM-5	WG-GRUAN co-chairs, Lead Centre, Task Team chairs
20	Create a draft technical document on surface meteorological measurement requirements (T, P, U) in support of in-situ and remote sensing activities at GRUAN sites to include aspects on frequency of reporting, calibration and upkeep. Lead: Peter Thorne. Draft submitted for consideration / discussion at ICM5	ICM-5	Peter Thorne, WG-GRUAN, LC, at least one member from each Task Team
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 manufacturers. Report to WG-GRUAN. Holger / Bertrand/ WG-GRUAN chairs.	August 2012	Lead Centre, WG-GRUAN, Task Teams