

Progress check against ICM-5 agreed work plan

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**Presented at 6th GRUAN Implementation and Coordination
meeting, Washington DC, 10 March 2014**

First some notes:

- We are all very busy and GRUAN is largely a volunteer effort. We understand when the exigencies of life get in the way of planned GRUAN tasks.
- The goal is not to name and shame but rather just confirm where we are with things. There is no need to apologise. Let's just focus on where we are, what needs to be done, and how to get there.
- It really helps if everyone can keep the GRUAN Master Action Item list up to date.
- In the following, **green** means done, **orange** means partially done, and **red** means not done.

Revise IP language to be clearer that we are looking to partner with rather than duplicate work of other experts and that in very many cases we are not the experts. Also that GRUAN sites are owned and operated by third parties and not GRUAN.

Who: WG Co-Chairs (PT lead)

Deadline: March 2013.

Technical documents for GRUAN Lidar stream submitted for review by WG-GRUAN.

Who: Task team on ancillary measurements

Deadline: March 2013.

Comments: A *very* comprehensive GRUAN lidar programme guide (100 pages in total) was circulated for comment on 2 December 2012 to Peter, Greg, Holger and the ancillary measurements task team. Still needs to be brought to a level suitable for circulation amongst the WG → please confirm Theirry?

A paper on "Collocation of observations" with an emphasis of how to account for mismatches in quantifying and comparing uncertainties submitted to a peer reviewed journal.

Who: Alessandro Fasso and GATNDOR

Deadline: May 2013.

Provide a two-page structure outline of the expected format of an omnibus TD for each data stream taking as a starting point the lidar guide (which we may suggest some changes to ...) and publish as a GRUAN report.

Who: Co-chairs

Deadline: May 2013.

Comments: The document was completed and submitted to the Lead Centre on 7 June 2013. Has a decision been made yet as to how this will be published? GRUAN report or Technical Note?

Retention of collocated satellite / sonde / NWP data within or linked from the GRUAN data archive to facilitate intercomparisons.

Who: Task Team on Ancillary Measurements (Tony Reale and Michael Sommer)

Deadline: June 2013.

Develop a calibration/validation concept for the EUMETSAT geostationary MTG series based on GRUAN sites.

Who: Task Team on Ancillary Measurements and WG

Deadline: June 2013.

A paper on "Quantifying the value of complementary measurements" submitted to a peer reviewed journal.

Who: Fabio Madonna

Deadline: June 2013.

Comments: paper titled 'Quantifying the value of redundant measurements at GRUAN sites' by Madonna, Rosoldi, Guldner, Haefele, Kivi, Sisterson, Pappalardo has been submitted?

Microwave radiometer Technical documents submitted for review by WG-GRUAN. (Two different documents - one for June and one for later).

Who: Task Team on Ancillary Measurements

Deadline: June 2013.

Comments: Still in progress with Nico Cimini. This task is linked with the EU action TOPROF (<http://www.toprof.ima.cnr.it/>), where the MWR Working Group should carry its activities forward.

FTIR Technical documents submitted for review by WG-GRUAN.

Who: Task Team on Ancillary Measurements (Jim Hannigan, Matthias Schneider, Martine De Maziere)

Deadline: June 2013.

Comments: Still in progress.

Formal establishment of Metadata Task Team - list of members provided to Lead Centre.

Who: WG co-chairs

Deadline: June 2013.

Comments: While it is true that we did not establish a formal metadata task team, we identified that this would simply not be possible and we found a way around that → Arnoud has kindly agreed to stand as a GRUAN rep on the WIGOS metadata Task Team. So perhaps while that was 'not achieved' it was 'resolved'.

Send maps of instrument locations, including elevation information to TT sites representatives co-chairs. Use as a template information on the Lindenberg site which will be circulated to site representatives by Lead Centre.

Who: Sites Task Team

Deadline: June 2013.

Documentation (as brief GRUAN report) that makes clear what additional work is required by sites to join GRUAN.

Who: Bodeker, Lead Centre, Sites Task Team

Deadline: June 2013.

Comments: Still needs to be put on GRUAN web page. The older, one page flyer is still being served on the GRUAN web page.

Survey sites for ascertaining which of the specific new data streams envisaged in the IP refresh they may have capability to deliver, whether they may consider submitting them, and whether they are interested in participating in their development. Simple table. To be delivered to WG, LC and other task team chairs by this date.

Who: Sites Task Team

Deadline: June 2013.

Temperature scheduling requirements study.

Who: Tom Gardiner.

Deadline: June 2013.

Comments: Currently in the process of finding reviewers for this GRUAN report (#3) → Melissa Free, Tony Reale and Betsy Weatherhead. We can make this green when the review is done.

Formally document what generic steps would be required to bring a new production sonde type into GRUAN as a GRUAN report. (Short report, submitted to review)

Who: Task Team on Radiosondes and Lead Centre

Deadline: July 2013.

Comments: Available as a technical note on the GRUAN web page.

Online tools based on the NPROVS system to visualize and monitor GRUAN profiles, collocated satellite, and NWP data (GPROVS).

Who: Task Team on Ancillary Measurements and WG.

Deadline: August 2013.

Comments: Rather than being a one-off action, this is an ongoing action and has been flagged as such on the GRUAN Master Action Item list.

A document detailing the operational challenges related to multi-payload soundings submitted either to peer reviewed literature (first choice) or to WG-GRUAN for review as a TD.

Who: Task Team on Radiosondes (Masatomo and Hannu)

Deadline: October 2013.

Comments: Hoping for 1st draft by the time of this meeting with final document completed by 30 June 2014.

GRUAN report synthesizing the four white papers developed through the GRUAN network expansion workshop.

Who: Bodeker and Network Expansion Workshop participants and collaborators.

Deadline: November 2013.

Comments: Nearly ready for circulation amongst the workshop participants → mostly thanks to the efforts of Anna Mikalsen.

A short GRUAN report detailing the process implemented to provide feedback of observation minus background fields to the GRUAN Lead Centre.

Who: David Tan and Lead Centre

Deadline: November 2013.

Comments: Now slated for completion by October 2014. The action has not been totally dormant: the potential feedback parameters have been discussed with GRUAN Lead Centre, June Wang and Tony Reale. Some prototype feedback data were prepared at ECMWF and sent to DWD.

An assessment of the advantages and disadvantages of manual vs. autosonde launches written up and submitted to the peer reviewed literature.

Who: Task Team on radiosondes.

Deadline: November 2013.

Comments: Now slated for completion in November 2014.

Define a site reports format expectation and roll out to sites for formal annual progress reports (Roll out November 2013, site reports due by end of Jan 2014).

Who: WG, Lead Centre and Site Task Team

Deadline: November 2013.

A paper submitted to a peer reviewed journal that provides a more accessible version of the GRUAN network expansion workshop report (e.g. a BAMS article).

Who: Bodeker and workshop participants / contributors.

Deadline: December 2013.

Comments: This will be more than just a more accessible version of the GRUAN network expansion workshop report. It will be the next chapter in the GRUAN story and will include a discussion of expansion of the network.

Manuscript(s) detailing operational considerations for controlled descents submitted to a journal or detailed in a GRUAN Report.

Who: Task Team on Radiosondes

Deadline: December 2013.

Comments: now slated for completion by 30 June 2014.

Revise the RS-92 data stream based upon feedback received - revised version 3 release including qc flags vectors and data in different vectors (good, questionable, missing).

Who: Lead Centre

Deadline: December 2013.

Comments: Version 3 of the data stream will be delayed. Several issues have been discovered and placed into the list of revisions.

TD omnibus of all things RS-92.

Who: Lead Centre

Deadline: December 2013.

Comments: To be discussed at this meeting. Any comments at this stage?

Technical documentation completed for frostpoint hygrometer measurements.

Who: Lead Centre and Task Team on Radiosondes.

Deadline: December 2013.

Comments: Documentation as well as processing are well under way. A first draft will be available at ICM-6.

First report on data usage including items such as publications arising, queries received etc.

Who: Lead Centre

Deadline: February 2014.

Comments: This needs some discussion.

Paper describing the RS-92 product submitted to journal.

Who: Lead Centre

Deadline: February 2014.

Comments: Paper nearing submission.

Short report for inclusion in ICM-6 proceedings summarizing sites processed to date.

Who: WG co-chairs

Deadline: March 2014.

Comments: See report later today.

Manuscript describing the derivation of uncertainty estimates for GNSS-PW measurements submitted to a peer reviewed journal.

Who: Task Team on GNSS-PW

Deadline: March 2014.

Comments: Now slated for completion in October 2014. What resourcing is required to get this done?

GRUAN launch activity as agreed between GRUAN participants.

Who: WG co-chairs, Lead Centre, secretariat

Deadline: May 2014.

Comments: This was superseded by AOPC and should be carried over to 2015 WMO full congress.

Investigate site-specific “recipes” of GRUAN ancillary and sonde measurements (including uncertainties) for comparison with sounding products, focusing on atmospheric temperature and moisture. Manuscript submitted.

Who: Task Team on Ancillary Measurements

Deadline: March 2014.

Comments: This has now been replaced with 'Perform demonstration study of SASBE at time of satellite overpass based on a realistic set of assumptions about the availability and colocation of sondes and ancillary measurements. Focus is on temperature and water vapour'.

Summary:

4 out of 32 red

17 out of 32 orange

11 out of 32 green

The moral of the story is that either we need more resourcing to move various actions forward, or we need to be more realistic about what we can accomplish with what we have.

Task teams and GATNDOR: please communicate to the co-chairs where additional funding (money is time) would be useful in getting an action item completed.