

What we said we would do in 2014-
2015 according to the IP and the
action master list, plus what still
nags on our collective conscience ...

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Outline

- IP actions in 2014-15 and any status updates as they stand
- Other actions that are new since IP and due in the coming year from the master listing
- The guilty conscience list

Note

- In the earlier check list of 2013-2014 action items we have caught up with anything that we were meant to do by today
 - Those that are still open we will need to decide whether to update or remove.
- This talk covers what we thought / promised we would do between now and ICM-7
- Primary source is GCOS-165 which is what the IP states we shall do.
- We can (and will) modify this
 - Modifications need to be documented in the official meeting report.

Some explanation

- Next slides have this format:
- IP Task
 - Outputs in IP Agreed variants in existing master list
 - Owner Agreed change in existing master list
 - Timeline in IP Agreed variants in existing master list
 - ~~Agreed redacted items~~

Notes

What the IP said we would do in this period ...

- Provide a scientific basis for sites to choose the optimal combination of measurement technologies to best meet GRUAN needs.
 - Technical document or publication(s) providing recommendations on the equipment to use at GRUAN sites on the basis of the analysis of experimental data.
 - GATNDOR / TTAM
 - May 2014
- May have been superseded – not entirely clear

- Address the unresolved operational aspects of radiosonde measurements and their interpretation.
 - If deemed applicable, a technical document that supports the adoption of controlled descent across GRUAN.
 - TT radisondes
 - ~~June 2014~~ December 2014

- Develop a GRUAN ozonesonde data product in consultation with NDACC and GAW.
 - Completed technical documents.
 - ~~Lead Centre~~ Greg Bodeker
 - June 2014

- Design and instigate a framework to investigate, report and resolve data quality and instrument issues in realtime
 - GRUAN Technical Document describing realtime QA/QC procedures implemented in GRUAN data flow.
 - Lead Centre
 - June 2014

- Review measurement scheduling required to meet the needs of temperature trend detection.
 - GRUAN report as a supplement to the scheduling section of the GRUAN Guide.
 - TT Scheduling
 - June 2014

Document under review

- ~~● Instigate a metadata Task Team to coordinate the uniform collection, use, and analyses of metadata across all GRUAN data streams.~~
 - ~~— June 2014~~
 - ~~— WG-GRUAN co-chairs~~

- Develop a simple network / metadata explorer, allowing for easier data discovery, visualization and possibly analysis, using Gearth or GAWSIS <http://gaw.empa.ch/gawsis/>, GIOVANNI, as examples.
 - GRUAN network explorer online
 - Lead Centre / TT sites
 - June 2014

Cannot find in master action item list to assess if updated

- Develop GRUAN humidity and temperature lidar data products in collaboration with NDACC.
 - Paper describing GRUAN lidar products submitted to peer reviewed journal.
 - TT-AM
 - August 2014

- Define the frostpoint hygrometer data collection client requirement, identify the central data processing facility, and initiate data flow.
 - Data flow through NCDC portal.
 - Lead Centre / Task Team on radiosondes
 - ~~September 2014~~ September 2015

- Define the Lidar data collection client requirement, identify the central data processing facility, and initiate data flow.
 - Data flow through NCDC portal.
 - Lead Centre / TT-AM
 - ~~September 2014~~ September 2015

- In collaboration with partner networks, assess the relevance and tractability of the full suite of remaining GRUAN target variables defined in GCOS112 in the context of measurement capabilities and measurement programmes underway in partner networks.
 - GRUAN report identifying potential target data streams and partners.
 - WG-GRUAN Chairs, Lead Centre, TT-AM, TT sites
 - September 2014

Not found in master action list to update

- Determine how best to work with BSRN to bring surface radiation measurements into GRUAN.
 - GRUAN report summarizing the strategy for consideration by GRUAN stakeholders.
 - WG-GRUAN Chairs, TT-AM
 - Jan 2015

Not found in master listing to update

- Develop GRUAN data products and processing streams for non-RS92 radiosondes in collaboration with relevant sites.
 - Series of technical documents describing processing streams for all non-RS92 radiosondes.
 - Lead Centre, TT sites, TT radiosondes
 - March 2015

- Develop frostpoint hygrometer data products. Guidance needs to account for operation of CFH, NOAA FPH, Snowwhite
 - Paper submitted to a peer reviewed journal.
 - Lead Centre, Task Team Radiosondes
 - March 2015

- Develop a GRUAN GNSS-PW product.
 - Technical documentation completed for GNSSPW measurements
 - TT-GNSS
 - March 2015

- Develop GRUAN temperature and water vapour microwave radiometer data products in collaboration with NDACC.
 - Paper describing the GRUAN Microwave radiometer product submitted to peer reviewed journal.
 - TT-AM
 - March 2015

- Develop GRUAN ozone and water vapour FTIR data products in collaboration with NDACC.
 - Paper describing GRUAN FTIR products submitted to peer reviewed journal.
 - TT-AM
 - March 2015

- Coordination with satellite data monitoring and validation programmes. The goal is to get GRUAN into the satellite product validation programmes. Three basic steps, the first two are: 1) gain routine access to GRUAN and collocate with NPROVS data streams 2) develop /disseminate useful monitoring and analysis tools that benefit both the GRUAN and satellite community.
 - Develop a tool for the optimization of vertical resolution of data to be used in RTM.
 - TT-AM
 - March 2015

Not found in master action list

- Instigate a user review group to meet on a biennial basis.
 - User review group terms of reference drafted and agreed to by WG-GRUAN.
 - WG-GRUAN Chairs
 - March 2015
- Need to discuss with AOPC who weren't that hugely enthusiastic

Things new since IP we currently have scheduled this year

- SHADOZ sites linkages (Greg)

The guilty conscience list ...

- Definition and documentation of generic surface instrument requirements and practices
- Pedagogical paper on appropriate propagation of uncertainties and generic code
 - Greg says this is now underway
- Ascertain which of (1) 'black box' default commercial software or (2) a cut down version of GRUAN processing software produces higher quality radiosonde data for nrt delivery.

- Conduct a pilot study to evaluate the efficacy of change management protocols / concepts for core priority 1 variable instruments (radiosondes, frostpoint hygrometers and GNSS) in the first instance.
- Estimate the contributions from all the terms in the error budget of the comparison of the satellite retrieved and reference temperature and humidity profiles (background, radiometric noise, forward model errors, representativeness, radiosonde errors).

- Develop tools to determine combined measurement uncertainty from optimised complementary datasets, including vertical resolution / correlation effects.
- Prepare public outreach material. This includes updating the GRUAN brochure
- European Commission involvement Partially met?

- Assessment of utility against cost and logistical overhead of regular site specific intercomparisons / travelling standards to intercompare sites.