

# Update on WG activities and check against ICM4 agreed activities

Peter Thorne (on behalf of WG-ARO)

# WG-ARO activities update

- Greg Bodeker formally joined in a co-chair role June 1<sup>st</sup>
- New members: Arnoud Apituley, Stephan Bojinski, Geir Braathen, Alessandro Fasso, Fabio Madonna, Andrea Merlone (pending AOPC approval) Masato Shiotani, David Tan (pending AOPC approval), Steve Williams
- Revised terms of reference approved Summer 2011 better delineates tasks

# Co-chairs solution

- Working well, brings extra organizational firepower
- Co-chairs share workload rather than having defined roles per se
- Regular skype calls and emails ensure we are joined up.

# Inter-sessional meetings

- We try to have two-monthly telecons and these help to build / maintain momentum
- If you want an issue raised in these contact the co-chairs

# Task teams

- We have very active task teams – testament to task team chairs and members
  - TD drafts
  - Technical reports
  - Capability building
- GATNDOR continues to produce science advice

# Status check on ICM-3 agreed work plan items

- 11 complete
- 13 in progress (many in very advanced stages)
- 5 not started / seriously delayed / unable to be done

- WG-ARO to update its terms of reference to include the role for assessment and certification as well as the new co-chair structure.
- Formulate recommendations on ground check for radiosondes as GRUAN technical document.
  - Reviewed by TT but yet to become a technical document.
- Prepare generic poster and PowerPoint presentation to be used in promoting GRUAN within the scientific community. This material is to be posted on [www.gruan.org](http://www.gruan.org).

- Consult with the satellite community (GSICS EP, SCOPE-CM EP, CGMS Working Groups) on better linkage to GRUAN.
- The site representation team will collect acknowledgement requirements from sites. Agree and implement data usage acknowledgement protocol.
- NCDC should consider the role of repository for raw data and data not yet congruent with GRUAN standards in addition to GRUAN data products. Lead Centre will advise NCDC on needs.
  - NCDC stands willing but nobody has requested



- Update the inventory of GRUAN site instrumentation in form of a matrix of current site capabilities
  - By variable classification was requested which has held this up.
- NCDC to consider a graphical user interface to RS92 GRUAN data. Report to WG-ARO by October 2011.
  - There is little resource and this can't be made a priority. If its of interest to GRUAN a third party would need to build such an interface.
- 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.
  - NCDC cannot do this, but LC has voluntary registration running

- 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.
  - Ethical issues raised, and not seen as a priority but probably will still happen.
- 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
  - Covered at WMO CBS ET meeting. Suggested side meeting at TECO Oct 2012. Response pending.
- Integrate GRUAN observations in the NOAA Products Validation System (NPROVS.)

- Explore possible avenues to set up a trust fund in support of targeted GRUAN activities.
  - Only very initial discussion. Issue is politically fraught.
- Circulate relevant documents to communities likely to be users of GRUAN products to ascertain whether these data products meet their needs.
  - We now have no idea what this relates to. Lesson learned about being more specific
- Complete measurement guidance for GNSS-IWV as technical document.
  - Accepted version following WG approved review protocol was received just prior to the meeting from the task team

- Complete the GRUAN Manual of Operations in liaison with Task Teams; final version to be approved by WG-ARO, Lead Centre and 2/3s of all sites.
  - To be discussed throughout the week
- Develop definition for optimal GRUAN site to decide on future sites (optimal location/climate zone, institution etc.). Form an organizing committee to make initial steps towards a workshop (possibly ISSI hosted), to be held shortly after ICM-4. Initial steps are to develop an agenda, draft an invitee list, plan for workshop.
  - To be discussed later in the meeting.

- 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.
  - Adopted. Very slight tweaks necessary after CBS ET meeting
- Protocol for acceptable instrument change-over as section in manual to cover generic change criteria.
  - Manual sign-off dependency
- Include a section in the manual on how to move from priority one to priority two climate variables.
  - Manual sign-off dependency

- Complete measurement guidance for lidar as technical document.
  - Draft circulated for comment
- Radiosonde Task Team to prepare a report on the issues of descent temperature measurements and the use of controlled descent measurements.
  - Will be reported on in TT talk
- Formulate requirements on surface observations in support of upper-air observations.
  - To be further discussed in side meeting for interested parties Wednesday evening.

- Develop best practice guidance for multi payload launches.
  - See task team report for update.
- Assessment of the value and utility of satellite coincident in-situ and remote sensing measurements vis-à-vis standard times for satellite cal/val.
  - Some work by John Dykema which will be presented at ITS9
- Initial set of temporal sampling guidance for *in-situ* and remote sensing instrumentation based upon a quantitative assessment prior to network expansion, including superseding of GCOS-121 documentation for *in-situ* measurements.
  - Limited progress. Part of solution is partitioning. Assessment should be by instrument type and be placed in each instrument's TD rather than the manual which should describe HOW these guidelines are to be derived?

- Formulate generic guidance on collocation based upon quantitative evidence wherever available, for priority one variables. Includes a toolbox and paper for submission.
  - Theoretical basis is advanced but resource limitations have meant limited practical application thus far.
- Investigate and design a system to report and resolve problems in data quality and instrument issues.
  - Still some way off. A casualty of lead centre staffing resources within year.
- Implement final version of the GRUAN data dissemination structure.
  - Data flowing



# Reminder

- We should either include the 2012-13 agreed items in the Implementation Plan or document why they have been superceded.
- Following pages quickly refresh with what 2012/13 items were envisaged to be
- We inevitably move further from these with the passage of time.
- Friday we will address whether the Implementation Plan needs a refresh and extension?
  - Will also address whether things we were supposed to have done by now haven't been and whether they are still required.

- 2012
- Conduct a pilot study to evaluate the efficacy of change management protocols / concepts.
- Create a priority list of candidates for expansion based upon rigorous assessment against requirements.
- Formal inclusion of the GRUAN Manual of Operations into existing WMO documentation.
- Instigate a user review group to meet on a biennial basis.
- Prepare public outreach material.

- 2013
- Develop an operational capability to undertake such a certification analysis providing efficient feedback to sites.
- Meet with current sites and candidate expansion sites (identified by the site certification and expansion team(sic)) and their governing institutions to elicit additional sites' involvement.
- End of implementation phase; Launch event of GRUAN full operational phase.