

Action item list to ICM-8

Summary

- >30 actions
 - Several old
 - Several borrowed from IP
 - Several new
- Those SIX which the co-chairs consider highest priority have been highlighted in red. We shall chase these once agreed.

Carried over tasks

- Action: 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 GRUAN report
- Owner: TT radiosondes
- Due: Sept 2015

- Finalize and publish the GRUAN brochure
- Greg Bodeker
- April 2015

- Letter of support for closer collaboration between CNR and Italian Met Service in support of Potenza site and broader Italian UA program
- Secretariat, Potenza, WG chairs
- May 2015

- A short GRUAN report detailing the process implemented to provide feedback of observation minus background fields to the GRUAN Lead Centre
- David Tan and Lead Centre
- June 2015

- An assessment of the advantages and disadvantages of manual vs. autosonde launches written up and submitted to the peer reviewed literature
- Task Team Radiosondes
- March 2016

[This one now critical]

- Each site to produce first version of photos to document seasonal and long term site changes (regular e.g. quarterly from stated locations / daily webcam shots etc. as appropriate to their specific case, and 'on change'). Uploaded to GRUAN website.
- Task Team Sites
- Nov 2015

- Technical documentation for GRUAN lidar stream (lidar Guide) submitted for review by WG-GRUAN
- Task Team Ancillary Measurements
- Dec 2015

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

- Technical documentation completed for frostpoint hygrometer measurements
- Task Team radiosondes
- Mar 2016

[These are two distinct things and we need both!]

- Manuscript(s) detailing operational considerations for controlled descents for frostpoint hygrometers submitted to a journal or detailed in a GRUAN Report
- Task Team radiosondes
- May 2016

- Action: Manuscript describing the derivation of uncertainty estimates for GNSS-PW measurements submitted to a peer reviewed journal
- Owner: Task Team GNSS-PW
- Due: Sept 2015

- Develop a GRUAN GNSS-PW product. Technical documentation completed for GNSSPW measurements (GNSS-PW Guide)
- Task Team GNSS-PW
- Dec 2015

- Develop a GRUAN ozonesonde data product in consultation with NDACC and GAW. Completed technical documents
- Greg Bodeker, Lead Centre
- Dec 2015

- 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), including implementation of performance feedback. Validate new radiation correction using ancillary measures to build confidence.
- Lead Centre, Task Team Radiosondes, TT ancillary measures
- March 2016

[Should include a paper to describe?]

- Perform demonstration study of SASBE at time of satellite overpass based on a realistic set of assumptions about the availability and collocation of sondes and ancillary measurements. Focus is on temperature and water vapour. Initial report available.
- Task Team ancillary measurements
- Apr 2016

- Develop GRUAN data product and processing stream for Modem radiosondes. First draft of technical document describing processing streams for all Modem radiosondes
- CNRS, Lead Centre, TT radiosondes
- Nov 2015

IP 2015-2016 items that remain relevant

- Define the ozonesonde data collection client requirement, identify the central data processing facility, and initiate data flow
- Greg Bodeker, Lead Centre
- April 2016

- Periodic science review of network expansion priorities and progress. Report to ICM-8
- Greg Bodeker
- Apr 2016

- Define the GNSSPW data collection client requirement, initiate data flow
- GNSS-PW task team, LC
- Mar 2016

- Extend trend sensitivity studies to stratospheric water vapour
- TT Scheduling + Dave Whiteman
- Sept 2015

- Define the Frostpoint hygrometer data collection client requirement, identify the central data processing facility, and initiate data flow.
- TT radiosondes
- Mar 2016
- [Removed]

- Determine how best to work with NDACC and GAW to bring in measurements of aerosol properties into GRUAN. Produce short document outlining a proposed strategy.
- WG Chairs, WG members, TT Ancillary measures.
- Mar 2016

New / retooled actions arising from discussions

- All sites with capability to report BUFR over GTS in NRT. Advice and tech. support to be provided by LC / WMO / GCOS on a site by site basis to all certified and candidate sites not currently reporting BUFR to attempt to enable. In first instance LC to ascertain status for each site as to why not reporting BUFR to GTS and advise Tim Oakley and Roger Atkinson.
- Lead Centre, GCOS, WMO, TT sites
- Sept 2015 for initial reports for each site to Tim and Roger
- ICM-8 for all sites with capability to be reporting BUFR

- Investigate whether GRUAN uncertainties could be transmitted over BUFR or whether BUFR tables would require modification to enable this.
- GCOS Network manager, CBS, **plus WG chairs**
- Report at ICM-8

- Prepare and disseminate promotional video for GRUAN. Site reps to send segments to Greg
- Greg Bodeker, Lead Centre
- Aug 2015

- Technical Note on the appropriate techniques for manufacturer independent ground checks using the SHC
- Lead Centre
- **December** 2015

[BUT ... For ARM to consider the change to their RS92 this needs to be / there is also a need for a peer reviewed paper per Doug's response to Q on Weds]

- Produce a Technical Note highlighting the steps that must be achieved for a GRUAN product to be accepted ('certified') and released. WG to review criteria for acceptance
- WG chairs, TT chairs, Lead Centre, Holger Vömel
- August 2015

- Technical note outlining the process that will be undertaken to certify a new program at a site with an existing certified measurement program
- WG-Chairs, TT-chairs, Lead Centre,
- WG to review and approve
- June 2015

[This and previous feel distinct but could be combined to reduce action count?]

- Develop first draft of GRUAN radiosonde generic technical document omnibus
- Lead Centre, Task Team Radiosondes, Greg Bodeker, but also include some non-instrument experts, **WMO ET can review**
- November 2015

- Define strategy and necessary steps to undertake transition from RS-92 to another sonde model. Produce GRUAN report on strategy and rationale including inter-alia:
 - Sharing the burden
 - Role of ancillary measurements
 - Plans for parallel measurements
 - Ensuring competition in marketplace
- Lead Centre, TT-sondes, TT sites, WMO, GCOS
- October 2015

- Presentation(s) at ICM-8 summarizing strategy for dealing with transition from RS92 and initial analyses and implications
- LC, TT radiosondes, TT sites
- April 2016

- GRUAN information event at WMO congress to include presentations from PRs and handing of certificates.
- Lead Centre, GCOS secretariat with input from WG chairs
- June 2015

- GRUAN official launch event / celebration including some short relevant presentations and possibly posters
- WG, LC, TT-sites
- To be held at ICM-8 which will take us back to our roots where it all started

- Lead Centre and US National Weather Service Sterling facility to meet in person to discuss collaboration and advise WG
- Lead Centre / NWS / broader NOAA contingent
- Nov 2015

- Lead Centre to work with sites not attaining regularly 10hPa to understand why and help improve situation. Short report from each affected site at ICM-8
- Lead Centre, TT sites
- April 2016

- Redraft IP to be more a strategic plan document, perhaps with a somewhat longer timeframe but only milestones, not deliverables, to avoid dating issues
- WG chairs, new LC team, TT chairs
- Draft document ready by ICM-8 for review and discussion

New ongoing tasks

- Please send relevant funding calls to the science coordinators so that they can disseminate to relevant parties and cajole to get GRUAN partners cooperating in proposals
- All
- Ongoing

- Produce a quarterly 2-page newsletter for dissemination to the community email list **to be sent by LC**
- Greg Bodeker, Emma Scarlet, **Science coordinators**
- Every 3 months +/- 1 month tolerance (this is GRUAN after all)

Did I miss any actions folks would like to see by ICM-8?

- The GNSS-RO / polar orbiter / site collocation forecast tool from EUMETSAT? LC to look into implementation. Beta product for collocations. LC and TT-AM.
- BUFR at monitoring centres issue to AOPC?
- NOAA NWS engagement?

GRUAN oral histories

- Were there any additional takers to help Dian and Ruud in this endeavor?