

Action items through to ICM-9

Peter Thorne

Outline

- Proposed high priority action items
- RS92 transition actions
- Items held over
- New items

- Other suggestions?

- Close

Proposed high priority action items

- An assessment of the advantages and disadvantages of manual vs. autosonde launches written up and submitted to the peer reviewed literature
- TT radiosondes
- June 2017

- Note: This was a high priority action last time around. See no reason to change that.

- 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. To be augmented by quantitative analysis of existing multi-payload flights.
- TT radiosondes, NOAA NWS, LC, TT sites, Science coordinators
- March 2017

- Develop first draft of GRUAN radiosonde generic technical document omnibus
- Lead Centre, Task Team Radiosondes, but also include some non-instrument experts, WMO ET can review
- Nov 2016

- Revise the RS-92 data stream - revised version 3 release including qc flags + data in different vectors (good, questionable, missing), including implementation of performance feedback to the sites. Validate new radiation correction using ancillary measures to build confidence incl. GAIA-CLIM NWP feedback. Document v3 appropriately in peer-reviewed literature.
- Lead Centre, TT radiosondes, TT ancillary measurements
- Mar 2017

RS92 transition actions

- Put in an intensive observations campaign proposal to ARM to run dual launch programs at their sites of RS-92 and RS-41 to help quantify the effects for 1 year.
- Greg Bodeker, Peter Thorne, Ruud Dirksen, Doug Sisterson, Lori Borg, Tony Reale, TT sites
- May 2016

- Initial analysis of current dual launch data to be reported to GRUAN ICM-8 participants by email.
- Alessandro Fasso, LC
- June 2016

- Lead Centre to ascertain consistency or otherwise of payload configurations being undertaken by sites performing a dual sounding program and make a recommendation as to how to set the rigs to assure comparability to extent possible.
- LC, TT sites
- June 2016

- Lead Centre to work with BoM to instigate an intercomparison campaign for RS92-RS41 transition at the tropical Darwin site
- LC / BoM / TT radiosondes
- July 2016

- Lead Centre to provide guidance on when and under what conditions to undertake flights if not to a regular schedule. Night / day / cloud / clear, informed by early lab results. Including providing schedules for 'golden' launch times with polar orbiters / GNSS-RO
- LC / TT radiosondes / Axel Von Engeln
- July 2016

- Lead Centre to instigate and populate a database of parallel soundings of RS92-RS41, including where possible satellite co-locations, raw and black-box processed raobs profiles. Served through LC and available to GRUAN community for analysis.
- LC, TT radiosondes, Tony Reale
- August 2016

- Paper describing the GRUAN change management replacement strategy submitted to peer-reviewed journal (GI) to increase visibility of effort and broad community buy-in.
- LC, TT raobs, WG-GRUAN
- Sept 2016

- Lead Centre and Sterling facility to undertake coordinated lab characterisation of the RS92 and RS41. Formal report at ICM-9.
- LC / NWS Sterling
- June 2017

- Interim analysis of the radiosonde overlap observations completed and reported at ICM-9
- Lead Centre, Task Team radiosondes, science coordinators, Alessandro Fasso
- June 2017

- Interim analysis of the insights that can be bought by the use of satellite data to the characterisation of the change between RS92 and RS41 based upon the paired launches.
- Lead Centre, Task team ancillary measurements
- June 2017

Still open items from ICM-7 action item list

- 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.
- Lead Centre, GCOS, WMO, TT sites
- To be closed by ICM-9

- Complete and disseminate promotional video for GRUAN.
- Greg Bodeker, Lead Centre
- May 2016

- Extend trend sensitivity studies to stratospheric water vapour
- TT Scheduling
- Dec 2016

- Still relevant / planned?

- Site photo surveys to be uploaded to new website. LC to instigate mechanism to remind sites to submit new photos. Several snapshot series available from each site on web at time of ICM-9
- TT Sites, Lead Centre
- June 2017

- 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
- Mar 2017

- Technical Note on the appropriate techniques for manufacturer independent ground checks using the SHC. Paper submitted to peer review documenting scientific rationale
- Lead Centre, Science coordinators
- Dec 2016

- Technical documentation for GRUAN lidar stream (lidar Guide) submitted for review by WG-GRUAN
- TT Ancillary measurements
- Dec 2016

- Develop a GRUAN GNSS-PW product.
Technical documentation completed for
GNSSPW measurements (GNSS-PW Guide)
- TT GNSS-PW
- Dec 2016

- Develop a GRUAN ozonesonde data product in consultation with NDACC and GAW.
Completed technical documents
- Greg Bodeker, Jacquie Witte, Lead Centre
- Oct 2016

- Do we need actions related to paper and data processing?

- 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, Potenza, EARLINET
- June 2017

- Retire this?

- Define the GNSSPW data collection client requirement, initiate data flow
- GFZ, Lead Centre, TT GNSSPW, TT sites
- April 2017

- Define the ozonesonde data collection client requirement, identify the central data processing facility, and initiate data flow
- Greg Bodeker, Lead Centre
- April 2017

- Complete proposal for transmitting GRUAN uncertainties over BUFR and required modification of BUFR tables and report to IPET-DRMM
- Sasha Kats, Kizu-San, TT radiosondes, TT sites
Lead Centre, CBS
- Nov 2016

New items

- Version 3 release of RS-92 to include correlated uncertainty information and subsequent work to consider an emulator that can create N profiles consistent with the uncertainty information
- LC, TT radiosondes, science coordinators
- Mar 2017

- Task Teams to revise terms of reference to reflect current status and required work plans and submit to WG for approval
- TT chairs and members
- June 2016

- Greg to draft and circulate guidelines for the certified site auditing to WG and TT site reps. Agreed version to become a GRUAN TN.
- Greg
- July 2106

- Complete and publish new GRUAN IP after publication of the GCOS IP to ensure consistency with this 'parent' document
- Peter Thorne with input from WG-GRUAN, LC, TT chairs
- Dec 2016

- Paper on the ecosystem of upper-air systems co-drafted with principals of NDACC, TCCON, etc. as submission to NDACC special issue
- WG Chairs, principals of remaining networks
- Nov 2016

- LC and processing centres to evaluate options with regard to failsafe back-up to ensure data archival and processing software redundancy. Technical Note produced.
- Lead Centre, processing centres
- December 2016

- WG members to review the beta website and discuss and provide feedback on any necessary structural innovations to Lead Centre on the next WG call. Then to provide feedback at ICM-9 based on use (WG-GRUAN to identify 2-3 volunteers to do this more in-depth review)
- WG-GRUAN
- June 2016 for first call, June 2017 for feedback

- GRUAN abstracts to be submitted to CIMO TECO and MMC2 in Madrid in late September.
- Who is going? Who can go?
- Abstracts May; Presentations Sept 2016

Other suggestions?

- Not sure what to do at this stage viz developing further the frostpoint hygrometers documentation and processing. Are there in-year actions?
- Actions related to Meteolabor and Mesei sonde products?
- RR01 action following sites day discussions?
- Something on SASBEs, MWR, FTS?
- Network expansion action(s)?
- Updating wiki pages?
- Is there anything else missing?