

## Appendix C: 2016/2017 Action Items

	Action	Owner	Due
<b>High priority actions</b>			
1	An assessment of the advantages and disadvantages of manual vs. autsonde launches written up and submitted to the peer reviewed literature.  Note: This was a high priority action last time around. See no reason to change that.	TT Radiosondes	June 2017
2	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	Mar 2017
3	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
4	Revise the RS92 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
<b>RS92 Transition Actions</b>			
5	Put in an intensive observations campaign proposal to ARM to run dual launch programs at their sites of RS92 and RS41 to help quantify the effects for 1 year.	Greg Bodeker, Peter Thorne, Ruud Dirksen, Doug Sisterson, Lori Borg, Tony Reale, TT sites	May 2016
6	Initial analysis of current dual launch data to be reported to GRUAN ICM-8 participants by email.	Alessandro Fasso, LC	June 2016
7	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
8	Lead Centre to work with BoM to instigate an intercomparison campaign for RS92-RS41 transition at the tropical Darwin site	LC, BoM, TT radiosondes	Jul 2016

9	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	EUMETSAT, PoC and Axel Von Engeln	Dec 2016
10	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	Aug 2016
11	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	Sep 2016
12	Lead Centre and Sterling facility to undertake coordinated lab characterisation of the RS92 and RS41. Formal report at ICM-9.	LC, NWS Sterling	Jun 2017
13	Interim analysis of the radiosonde overlap observations completed and reported at ICM-9	LC, TT radiosondes, Science Coordinators, Alessandro Fasso	Jun 2017
14	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.	LC, TT ancillary measurements	Jun 2017
<b>Items Held Over from ICM-7 Action Item List</b>			
15	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
16	Complete and disseminate promotional video for GRUAN.	Greg Bodeker, Lead Centre	May 2016
17	Extend trend sensitivity studies to stratospheric water vapour	TT Scheduling	Dec 2016
18	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	Jun 2017
19	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

20	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
21	Technical documentation for GRUAN lidar stream (lidar Guide) submitted for review by WG-GRUAN	TT Ancillary measurements	Dec 2016
22	Develop a GRUAN GNSS-PW product. Technical documentation completed for GNSSPW measurements (GNSS-PW Guide)	TT, GNSS-PW	Dec 2016
23	Develop a GRUAN ozonesonde data product in consultation with NDACC and GAW. Completed technical documents <ul style="list-style-type: none"> <li>Do we need actions related to paper and data processing?</li> </ul>	Greg Bodeker, Jacquie Witte, Lead Centre	Oct 2016
24	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. <ul style="list-style-type: none"> <li>Retire this?</li> </ul>	WG Chairs, WG members, TT ancillary measures, Potenza, EARLINET	Jun 2017
25	Define the GNSSPW data collection client requirement, initiate data flow	GFZ, Lead Centre, TT GNSSPW, TT sites	Apr 2017
26	Define the ozonesonde data collection client requirement, identify the central data processing facility, and initiate data flow	Greg Bodeker, Lead Centre	Apr 2017
27	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
<b>New Items</b>			
28	Version 3 release of RS92 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
29	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	Jun 2016
30	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 Bodeker	Jul 2016
31	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
32	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

33	LC and processing centres to evaluate options with regard to failsafe back-up to ensure data archival and processing software redundancy. Technical Note produced.	LC, Processing Centres	Dec 2016
34	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	Jun 2016 (first call) Jun 2017 for feedback
35	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
36	Report on SASBE development activities at ICM-9	TT Scheduling, TT Ancillary Measurements, Science Coordinators	Jun 2017
<b>Other Suggestions</b>			
37	<ul style="list-style-type: none"> <li>a) Not sure what to do at this stage viz. developing further the frostpoint hygrometers documentation and processing. Are there in-year actions?</li> <li>b) Actions related to Meteolabor and Mesei sonde products?</li> <li>c) RR01 action following sites day discussions?</li> <li>d) Something on SASBEs, MWR, FTS?</li> <li>e) Network expansion action(s)?</li> <li>f) Updating wiki pages?</li> <li>g) Is there anything else missing?</li> </ul>		