

ICM-11 Agenda

20-24 May 2019

Singapore

Host: National Environmental Agency (NEA) - Singapore

Organizers: Shwei Lin Wong(NEA), Lesley Choo (NEA), Ruud Dirksen (DWD), Peter Thorne (Maynooth), David Smyth (Maynooth), Caterina Tassone (WMO), Tim Oakley (WMO), Howard Diamond (NOAA), June Wang (U Albany), Belay Demoz (UMBC), Dale Hurst (NOAA)

Note: In a change to the structure of ICM-10 and in partial response to feedback from Secretariat, 'Site Perspective' slots have been introduced. The aim is to facilitate topic-focused talks presented by sites in context rather than as part of a separate session. Sites will still have the same amount of time overall for talks as in ICM-10.

Monday 20 May

Day chair: June Wang

Session 1 - Opening

1 - 1	08:00 - 08:45	Registration	
1 - 2	08:45 - 09:00	Introductions	June Wang
1 - 3	09:00 - 09:25	Official opening	Patricia Ee - Director of MSS Weather Services department
1 - 4	09:25 - 09:40	GRUAN Fundamentals	Ruud Dirksen
1 - 5	09:40 - 09:45	Presentation of GRUAN certification to ARM-SGP	Ruud Dirksen

09:45 - 10:15 **Coffee**

Session 2 - Review of progress

2 - 1	10:15 - 10:25	Welcome, local logistics, outline of events, adoption of agenda	Local hosts & WG chair
2 - 2	10:25 - 10:45	Remarks from GCOS including relevant AOPC outcomes	Caterina Tassone
2 - 3	10:45 - 11:15	Lead Centre progress report	Ruud Dirksen
2 - 4	11:15 - 12:00	Assessment of progress against action items arising from ICM-10	Peter Thorne / June Wang

12:00 - 13:00 **Lunch**

Session 3 - Discussion of topics raised by Task Team reports

3 - 1	13:00 - 13:10	Radiosonde TT: brief summary (2 slides)	Masatomo Fujiwara
3 - 2	13:10 - 13:25	Discussion on points arising	Led by day chair
3 - 3	13:25 - 13:35	Sites TT: Brief summary (2 slides)	Dale Hurst / Belay Demoz
3 - 4	13:35 - 13:50	Discussion on points arising	Led by day chair
3 - 5	13:50 - 14:00	Scheduling TT: Brief summary (2 slides)	Tom Gardiner
3 - 6	14:00 - 14:15	Discussion on points arising	Led by day chair
3 - 7	14:15 - 14:25	Ancillary Measurements TT: Brief summary (2 slides)	Thierry Leblanc
3 - 8	14:25 - 14:40	Discussion on points arising	Led by day chair

14:40 - 15:05 **Coffee**

3 - 9	15:05 - 15:15	GNSS-PW TT: Brief summary (2 slides)	Kalev Rannat
3 - 10	15:15 - 15:30	Discussion on points arising	Led by day chair
3 - 11	15:30 - 15:55	Report from GRUAN science coordinator	Tom Gardiner
3 - 12	15:55 - 16:15	Discussion of topics arising from task teams / science coordinators	Led by day chair

16:15 - 16:30 **Session break**

3 - 13	16:30 - 17:15	WG meeting to discuss WG & TT rotation	WG led by June Wang
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Tuesday 21 May

Day chair: Peter Thorne

Session 4 - Advances in the development of new GRUAN data products

Presenters please explicitly assess progress against the criteria laid forth in GRUAN TN-4. i.e. A technical document commensurate with GRUAN-TN-2; peer reviewed paper; measurement system ready to be adopted at at least one GRUAN site; central processing facility identified; data stream run as a beta release; data stream reviewed for appropriateness.

4 - 1	09:00 - 09:10	Steps needed for a GRUAN GDP	Ruud Dirksen
4 - 2	09:10 - 09:50	Progress to an RS41 product: *Operational processing system *Radiation tests and humidity time-lag	Michael Sommer / Christoph von Rohden
4 - 3	09:50 - 10:05	QA/QC procedures for radiosonde data products	Michael Sommer / Christoph von Rohden
4 - 4	10:05 - 10:25	Status update of GRUAN data products for Meisei RS-11G and iMS-100 radiosondes	Shunsuke Hoshino
4 - 5	10:25 - 10:30	Presentation of GRUAN certification for RS-11G	Ruud Dirksen

10:30 - 11:00 Coffee

4 - 6	11:00 - 11:15	Calibration of a Radiosonde Humidity Sensor using the low-temperature low pressure humidity chamber at KRISS	Sang-Wook Lee
4 - 7	11:15 - 11:30	A study on the solar correction for the RS41 using the Upper Air Simulator at KRISS	Yong-Gyoo Kim
4 - 8	11:30 - 12:00	Review of progress of dataproduct: GNSS PW	Galina Dick

12:00 - 13:00 Lunch

4 - 9	13:00 - 13:15	Update on Graw DFM-09 (& RS92)	LC
4 - 10	13:15 - 13:25	Intermet iMet-4 radiosonde: development history and steps towards GRUAN qualification	Mark Benoit
4 - 11	13:25 - 13:40	Current status of lidar GRUAN data products	Thierry Leblanc
4 - 12	13:40 - 14:00	Operational and GRUAN radiosounding validation of PRR temperature data retrieved by the RAman Lidar for Meteorological Observations (RALMO) at Payerne	Gianni Martucci
4 - 13	14:00 - 14:15	Current status of MWR GRUAN data products	Fabio Madonna
4 - 14	14:15 - 14:30	Strategy for developing GRUAN data products for frostpoint hygrometers	Ruud Dirksen / Dale Hurst

14:30 - 15:00 Coffee

4 - 15	15:00 - 15:15	Update on the ozonesonde data product	Richard Querel
4 - 16	15:15 - 15:30	Use of Standard Humidity Chamber	Richard Querel
4 - 17	15:30 - 15:45	Status of GRUAN data product development for Modem M10	Damien Vignelles
4 - 18	15:45 - 16:00	Uncertainty terminology and presentation in GRUAN products	Tom Gardiner
4 - 19	16:00 - 16:15	How to deal with correlated uncertainties when processing long data series?	Tom Gardiner
4 - 20	16:15 - 16:30	Progress on the use of GRUAN uncertainty in operational sounding products	Tony Reale
4 - 21	16:30 - 16:45	GRUAN data policy	LC

Wednesday 22 May**Day chair: David Smyth****Session 5 - Immediate operational concerns**

5 - 1	09:00 - 09:10	Availability of cryogen for CFH/FPH	Ruud Dirksen
5 - 2	09:10 - 09:25	Issues with availability of Helium; viability of hydrogen	Arnoud Apituley / Richard
5 - 3	09:25 - 09:40	Premature balloon bursts because of low temperatures (relevant for Arctic & tropical sites)	Shwei Lin Wong/ Marion Maturilli
5 - 4	09:40-10:00	Stand-up sites presentations about operational concerns (2/3 slides only), plus discussion	Belay Demoz & others

10:00 - 10:30 Coffee

5 - 5	10:30 - 12:00	Breakout session (TT ancillary/Autolaunchers)	Thierry LeBlanc / Fabio Madonna & Giovanni Martucci / Christoph von Rohden
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12:00 - 13:00 Lunch**Session 6 - RS92-RS41 changeover and parallel soundings**

6 - 1	13:00 - 13:15	Parallel soundings database augmentation update: how many soundings; all sondes in; satellites; remote sensing	Michael Sommer
6 - 2	13:15 - 13:30	RIVAL campaign status and GRUAN/GSICS coordination	Tony Reale
6 - 3	13:30 - 13:45	RS41-RS92 intercomparison campaign at Darwin (plus some RS41-RS92 dual ozonesonde flights)	Matt Tully
6 - 4	13:45 - 14:00	On the accuracy of Vaisala RS41 humidity observations in both radiance and geophysical spaces	Bomin Sun
6 - 5	14:00 - 14:15	Intercomparison of RS92 and RS41 using climatic chambers and wind tunnel: update on the data analysis	Marco Rosoldi
6 - 6	14:15 - 14:30	Met Office RS92 - RS41 transition results	David Edwards
6 - 6	14:30 - 14:45	Analysis of RS92-RS41 twin soundings	Alessandro Fasso

14:45 - 15:15 Coffee**Session 7 - Sites presentations****New results, updates, opportunities, measurements, funding**

7 - 1	15:15 - 15:30	Do ozonesonde records support the reported continuing decline in lower stratospheric ozone?	Dale Hurst
7 - 2	15:30 - 15:45	Drone-based AirCore measurements at Sodankylä	Rigel Kivi
7 - 3	15:45 - 16:00	New instruments and data transmission at Tateno, Minamitorishima and Syowa	Shunsuke Hoshino
7 - 4	16:00 - 16:15	DWD radiation sonde results	Tzvetan Simeonov
7 - 5	16:15 - 16:30	Updates on the Inter-Programme Expert Team on Observing System Design and Evolution (IPET-OSDE) of WMO/CBS	Erik Andersson
7 - 6	16:30 - 16:45	RS41 descent / ascent data comparison	Bruce Ingleby

Thursday 23 May**Day chair: Jordis Tradowsky****Session 8 - Substantive discussions on UTLS water vapour measurement**

8 - 1	09:00 - 09:20	Progress report on: the Peltier-cooled frostpoint hygrometer (PCFH); and FLASH-B and TDL-based spectrometer	Yann Poltera
8 - 2	09:20 - 09:40	Assessment of alternatives to R23 by TU-Dresden	Ruud Dirksen
8 - 3	09:40 - 10:00	Meisei Skydew instrument: analysis of results from Lindenberg campaign	Takuji Sugidachi
8 - 4	10:00 - 10:20	Performance of RS41 in the UTLS (improved time-lag and bias correction)	Yann Poltera
8 - 5	10:20 - 10:30	Discussion	

10:30 - 11:00 Coffee**Session 9 - Autolaunchers and RS documentation**

9 - 1	11:00 - 11:30	Autolaunchers: progress update, including conclusions from breakout session	Fabio Madonna / Masatomo Fujiwara
9 - 2	11:30 - 12:00	Radiosonde fundamental documentation (RS omnibus)	Christoph von Rohden

12:00 - 13:00 Lunch

13:00 - 18:00	Site visit, to include: 13:30 - 15:45 *Gardens by the Bay: Cloud Dome and Garden Dome tour 16:30 - 16:55 *At CCRS: group photos; tea-break 16:55 - 18:00 *DG address: Ms. Wong Chin Ling *GRUAN certificate presentation *CCRS presentations: - Dr Bertrand Timbal: CCRS - An Overview - Dr Muhammad Eeqmal Hassim: Homogenisation and trends of Singapore's monthly upper-air temperature observations	
18:00 - 18:45	UAO operations and radiosonde launch	
18:45 - 22:00	Depart CCRS: conference dinner	

Friday 24 May**Day chair: Ruud Dirksen****Session 10 - Future plans: new sites, proposals, products, measurement programs**

10 - 1	09:00 - 09:10	Funding opportunities: LC-SPACE-19-EO-2020 and others	Peter Thorne
10 - 2	09:10 - 09:25	EUMETSAT RO Processing: Reprocessing, Occultation Predictions, Metop-C Update	Axel von Engeln
10 - 3	09:25 - 09:40	Uncertainty validation of ROM SAF tropospheric specific humidity profiles using collocated GRUAN radiosondes	Johannes Nielsen
10 - 4	09:40 - 09:55	The ongoing collaborations between GRUAN and the Radio Occultation community	Jordis Tradowsky
10 - 5	09:55 - 10:35	New sites discussion: 1. Paramaribo 2. Tahiti 3. Barbados 4. Arrival Heights	Ankie Piters / Damien Vignelles / David Ferrell / Richard Querel

10:35 - 11:05 Coffee

10 - 6	11:05 - 11:20	WMO-CIMO Radiosonde intercomparison campaign 2021	Ruud Dirksen
10 - 7	11:20 - 11:25	Update on WMO/CIMO Expert Team on Upper Air Measurements	June Wang
10 - 8	11:25 - 11:40	Use of GRUAN measurements and data processing to improve the quality of global radiosounding observing capabilities	Fabio Madonna
10 - 9	11:40 - 11:55	Decadal review (2009-2019) of GRUAN journal articles	June Wang
10 - 10	11:55 - 12:05	Usage of GRUAN data: Discussion on metrics to support sites in making the case for continued GRUAN participation	David Smyth

12:05 - 13:05 Lunch**Session 11 - Governance issues**

11 - 1	13:05 - 13:15	Discussion on protocols for TD/TN/GRUAN Guide reviews/re-issues	David Smyth
11 - 2	13:15 - 13:30	Naming conventions for GRUAN-processed data from non-GRUAN sites	Ruud Dirksen / LC
11 - 2	13:30 - 13:40	Action items to be raised with other programmes / bodies	Caterina Tassone
11 - 3	13:40 - 15:10	Agree ACTIONS	WG co-chairs
11 - 4	15:10 - 15:40	Closing remarks / ICM-12 location announcement	WG co-chairs