

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

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

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

Session 2 - Review of progress

10:15 - 10:25	Welcome, local logistics, outline of events, adoption of agenda	Local hosts & WG chair
10:25 - 10:45	Remarks from GCOS including relevant AOPC outcomes	Caterina Tassone
10:45 - 11:15	Lead Centre progress report	Ruud Dirksen
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

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

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

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

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

16:30 - 17:15	WG meeting to discuss WG & TT rotation	WG led by June Wang
---------------	--	---------------------

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.

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

10:30 - 11:00 Coffee

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

12:00 - 13:00 Lunch

13:00 - 13:15	Update on Graw DFM-09 (& RS92)	LC
13:15 - 13:25	Intermet iMet-4 radiosonde: development history and steps towards GRUAN qualification	Mark Benoit
13:25 - 13:40	Current status of lidar GRUAN data products	Thierry Leblanc
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
14:00 - 14:15	Current status of MWR GRUAN data products	Fabio Madonna
14:15 - 14:30	Strategy for developing GRUAN data products for frostpoint hygrometers	Ruud Dirksen / Dale Hurst

14:30 - 15:00 Coffee

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

Mittwoch 22 Mai**Day chair: David Smyth****Session 5 - Immediate operational concerns**

09:00 - 09:10	Availability of cryogen for CFH/FPH	Ruud Dirksen
09:10 - 09:25	Issues with availability of Helium; viability of hydrogen	Arnoud Apituley / Richard Querel

09:25 - 09:40	Premature balloon bursts because of low temperatures (relevant for Arctic & tropical sites)	Shwei Lin Wong/ Marion Maturilli
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	
---------------	---------------	--

10:30 - 12:00	Breakout session (TT ancillary/Autolaunchers)	Thierry LeBlanc / Fabio Madonna & Giovanni Martucci / Christoph von Rohden
---------------	---	--

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

Session 6 - RS92-RS41 changeover and parallel soundings

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

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

Donnerstag 23 Mai

Day chair: Jordis Tradowsky

Session 8 - Substantive discussions on UTLS water vapour measurement

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

10:30 - 11:00	Coffee	
---------------	---------------	--

Session 9 - Autolaunchers and RS documentation

11:00 - 11:30	Autolaunchers: progress update, including conclusions from breakout session	Fabio Madonna / Masatomo Fujiwara
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

09:00 - 09:10	Funding opportunities: LC-SPACE-19-EO-2020 and others	Peter Thorne
09:10 - 09:25	EUMETSAT RO Processing: Reprocessing, Occultation Predictions, Metop-C Update	Axel von Engeln
09:25 - 09:40	Uncertainty validation of ROM SAF tropospheric specific humidity profiles using collocated GRUAN radiosondes	Johannes Nielsen
09:40 - 09:55	The ongoing collaborations between GRUAN and the Radio Occultation community	Jordis Tradowsky
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

11:05 - 11:20	WMO-CIMO Radiosonde intercomparison campaign 2021	Ruud Dirksen
11:20 - 11:25	Update on WMO/CIMO Expert Team on Upper Air Measurements	June Wang
11:25 - 11:40	Use of GRUAN measurements and data processing to improve the quality of global radiosounding observing capabilities	Fabio Madonna
11:40 - 11:55	Decadal review (2009-2019) of GRUAN journal articles	June Wang
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

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