

ICM-15 Agenda

11-15 March 2024

In-person meeting + On-line

Host: MeteoSwiss

Organizers: Ruud Dirksen (DWD), Peter Thorne (Maynooth), Fabio Madonna (University of Salerno), Caterina Tassone (WMO), Tim Oakley (WMO), Marion Maturilli (AWI), Richard Querel (NIWA), Alexander Haefele (MeteoSwiss), Giovanni Martucci (MeteoSwiss), Simone Gagliardi (CNR-IMAA)

Monday 11 March (Times in CET : UTC+1)

Session 1 - Welcome, Logistics, Background and Updates

Chair: Tom Gardiner

	08:30 - 09:00	Registration	
1 - 1	09:00 - 09:15	Welcome (GRUAN WG - Co-Chairs)	Peter Thorne / Fabio Madonna
1 - 2	09:15 - 09:30	Opening Statement (GCOS/WMO)	Caterina Tassone
1 - 3	09:30 - 09:45	Official Opening (Local Host/MeteoSwiss)	Bertrand Calpini
1 - 4	09:45 - 09:55	Meeting Logistics	Giovanni Martucci
1 - 5	09:55 - 10:15	GRUAN - Introduction	Ruud Dirksen
1 - 6	10:15 - 10:35	GSRN Lead Centre	Jianxia Guo
	10:35 - 11:05	<i>Coffee break</i>	
1 - 7	11:05 - 11:30	GRUAN - Update since ICM-14 and GDP Status	Fabio Madonna
1 - 8	11:30 - 11:50	Status of actions from ICM-14	Peter Thorne
1 - 9	11:50 - 12:20	LC and Site Reports: summary and key threads	Lead Centre
1 - 10	12:20 - 12:30	Sites certification and other presentations	Peter Thorne / Fabio Madonna

12:30 - 13:30 LUNCH

Session 2 - Task Team GNSS (TT-GNSS)

Chair: Axel Von Engeln

2 - 1	13:30 - 13:55	Task Team Report, GNSS-PW data format (A6) and Metrological Closure (B8)	Kalev Rannat/Galina Dick
2 - 2	13:55 - 14:15	Comparison between GRUAN GNSS GDP and other techniques	Tzvetan Simeonov
2 - 3	14:15 - 14:30	Tracking biases and inhomogeneities in GNSS PW Time series	Olivier Bock
2 - 4	14:30 - 14:45	Discussion Time : Agree new actions on GDP progression	TT Chairs to moderate
	14:45 - 15:15	<i>Coffee break</i>	

Session 3 - Task Team Ground Based (TT-GB)

Chair: Belay Demoz

3 - 1	15:15 - 15:30	Task Team Report	TT Chairs
3 - 2	15:30 - 15:45	Microwave Radiometer progression GDP (Action A1)	Tobias Marke
3 - 3	15:45 - 16:00	MWR value added product and experience from ARM	M. P. Cadeddu
3 - 4	16:00 - 16:15	LIDAR GDP progression (Action A2)	Thierry Leblanc (remote)
3 - 5	16:15 - 16:30	Discussion Time : Agree new actions on GDP progression	TT Chairs to moderate

16:30 - 17:30	FORUM/DISCUSSION 1 - Quality Assurance / GDP Interoperability & Consistency / Reprocessing GDPs or new GDP. 15 min presentation to introduce the discussion topic and expected outcome (WG-Chair)
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Tuesday 12 March (Times in CET : UTC+1)

Session 4 - Task Team Satellite (TT-SAT)

Chair: Ankie Piters

4 - 1	09:00 - 09:15	Task Team Report & Satellite co-locations (B2) & EUMETSAT Campaign	TT Chairs
4 - 2	09:15 - 09:30	Update on the study for a vicarious calibration using GRUAN sondes (VICIRS)	Nico Cimini
4 - 3	09:30 - 09:45	GRUAN radiosondes applied in preparation and validation of specific humidity profiles derived from radio occultations.	Johannes Nielsen
4 - 4	09:45 - 10:00	On the consistency between GRUAN RAOBs and satellite hyperspectral infrared sounder measurements	Bomin Sun
4 - 5	10:00 - 10:15	Update on GRUAN Radio Sondes Validation against Radio Occultation	Axel von Engel
4 - 6	10:15 - 10:30	Discussion Time	TT Chair to moderate
	10:30 - 11:00	<i>Coffee break</i>	

Session 5 - Task Team Sites (TT-Sites)

Chair: Evan Keeler

5 - 1	11:00 - 11:15	Task Team Report	TT Chairs
5 - 2	11:15 - 11:30	GRUAN sites metadata (inc photos B3)	Michael Sommer/Fabrizio Marra
5 - 3	11:30 - 12:00	New Sites General + Helwan + Dome-C (Antarctica)	Fabio Madonna, Zeinab Fahmy (Egypt), Claudio Scarchilli (ENEA)
5 - 4	12:00 - 12:30	Xilinhot GRUAN Implementation and Progress of Beidou Round-trip drifting sounding system(RDSS) technology report	Guo Qiyun, Zhang Xuefen, Dabu Xilatu, Luo Haowen

12:30 - 13:30	LUNCH	
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Session 6 - Task Team Radiosonde (TT-RAD)

Chair: Alessandro Fasso'

6 - 1	13:30 - 13:45	Task Team Report	TT Chairs
6 - 2	13:45 - 14:00	Graw DFM-17 and DFM-09 GDP development	Johannes Frielingsdorf and LC
6 - 3	14:00 - 14:15	Quantitative analysis of the anomaly in radiosonde air temperature measurement above the cloud layer	Kim Yong-Gyoo
6 - 4	14:15 - 14:30	Calibration of radiosonde humidity sensors at air ventilation speed of 5 m/s	Lee Sang-Wook
6 - 5	14:30 - 14:45	Status of the Peltier Cooled Frost Point Hygrometer (PCFH) and comparison with CFH	Steven Brossi
6 - 6	14:45 - 15:00	Reference Humidity Retrievals with 'Dry Ice CFH' during the Swiss H2O Hub 2023 Campaign	Yann Poltera
	15:00 - 15:30	<i>Coffee break</i>	
6 - 7	15:30 - 15:45	Frostpoint Hygrometer GDP progression (Action A3)	Ruud Dirksen/Holger Voemel
6 - 8	15:45 - 16:15	Modem M10 GDP progression (Action A4) - 2 presentations; update from MODEM and intercomparison of M10 radiosondes	J-C Dupont & Christoph von Rohden & Bruce Ingleby
6 - 9	16:15 - 16:40	Ozonesonde GDP progression (Action A7) + SHADOZ collaboration	Richard Querel and/or Holger Voemel
6 - 10	16:40 - 17:00	Discussion Time : R23 Replacement (HP-2) + Agree new actions on GDP progression	TT Chairs to moderate
	17:00 - 17:45	FORUM/DISCUSSION 2 - Data Management and dissemination 15 min presentation to introduce the discussion topic and expected outcome (GRUAN-LC)	

Wednesday 13 March (Times in CET : UTC+1)

Site Day : Visit to Payerne, Host presentations and tour of Payerne Station

Session 7 - Site Visit Day + Host Presentations + Conference Dinner

7 - 1	09:00 - 09:15	Bus Pickup	
7 - 2	09:15 - 10:00	Transfer to Payerne	
7 - 3	10:00 - 10:30	Café+Croissant, welcome to MeteoSwiss and Presentation from WMO INFCOM & GCOS Director	Bertrand Calpini and Nir stav
7 - 4	10:30 - 12:00	Visit - Raman Lidar - SMN (+soil moisture) - BSRN - EMER-Met	Upper Air division
7 - 5	12:00 - 12:15	Balloon Launch	
7 - 6	12:15 - 13:15	On-site business Lunch	
7 - 7	13:15 - 14:45	Visit (cnt) - SOMORA - AutoPollen - Radiosounding	Upper Air, Pollen & Technical division
	14:45 - 15:00	Coffee	
7 - 7	15:00 - 16:30	Scientific presentations - E-Profile - RALMO - BSRN - Ozone - Radiosounding (R2HOME) - Aerosols	MeteoSwiss staff A. Haefele G. Martucci L. Vuilleumier E. Maillard Yohan Hadji M. Collaud
7 - 8	16:30 - 17:00	Transfer to Murten	
7 - 9	17:00 - 18:15	Stroll through town	
7 - 10	18:15 - 21:15	Dinner	
7 - 11	21:15 - 21:30	Bus Pickup	
7 - 12	21:30 - 22:00	Transfer to Hotel	

Thursday 14 March (Times in CET : UTC+1)

Session 8 - Science Coordination

Chair: Axel Von Engel

8 - 1	09:00 - 09:15	Update and Plans	Tom Gardiner/Arnoud Apituley
8 - 2	09:15 - 09:30	QC flagging (A5)	Tzvetan Simeonov
8 - 3	09:30 - 09:45	A campaign of atmospheric characterization at ESO sites in Northern Chile	Florian Kerber
8 - 4	09:45 - 10:00	Discussion Time	

Session 9 - Requirements and Innovation

Chair: Marion Maturilli

9 - 1	10:00 - 10:15	GRUAN Manual (& Guide) + Technical Documents (Theory)	Fabio Madonna
9 - 2	10:15 - 10:30	Site and Instrument certification + practices (Reality)	Ruud Dirksen
	10:30 - 11:00	<i>Coffee break</i>	
9 - 3	11:00 - 11:15	High altitude sonde NWP experiment	Fabien Carminati
9 - 4	11:15 - 11:30	Radiosonde data denial studies and implications for height attainment	Bruce Ingleby
9 - 5	11:30 - 11:45	Justification for high ascent attainment (HP4)	Masatomo Fujiwara
9 - 6	11:45 - 12:00	Standard Humidity Chamber (SHC) (HP3)	Lead Centre
9 - 7	12:00 - 12:15	The ALBATROSS laser spectrometer for balloon-borne measurements of UTLS water vapor: laboratory and in-flight validation	Simone Brunamonti
9 - 8	12:15 - 12:30	Discussion and summary	

12:30 - 13:30 LUNCH

13:30 - 16:00	Breakout afternoon : 2 groups; includes coffee break. Discussion topics: 1. GRUAN cooperative approach to access resource in support of network operations. Discussion topics: 2. Design of a quality assurance framework and quality flagging system for GDPs.
16:00 - 16:30	Breakout reporting (5 minute per session) + discussion

16:30 - 17:30	FORUM/DISCUSSION 3 - Intercomparisons : Presentations on WMO Radiosonde Intercomparison; GDP parallel soundings; Others (30 mins) : General discussion (30 mins)
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Friday 15 March (Times in CET : UTC+1)

Session 10 - Outreach, Users & Other ICM-14 Actions

Chair: Masatomo Fujiwara

10 - 1	09:00 - 09:15	GRUAN Implementation Plan + External review of GRUAN	Fabio Madonna
10 - 2	09:15 - 09:30	Balloon control technology aimed at advancing upper-air observations	Kensaku Shimizu
10 - 3	09:30 - 09:45	Water Vapor variability at different scales	Xavier Calbet
10 - 4	09:45 - 10:00	Impact of clouds on GRUAN observations - need to adjust the uncertainty calculation?	Simone Lolli
10 - 5	10:00 - 10:15	The Evaluation and Quality Control of GRUAN data in the Copernicus Climate Data Store	Virginia Ciardini
10 - 6	10:15 - 10:30	Discussion on GRUAN outreach: materials, webinars and training activities	Simone Gagliardi
	10:30 - 11:00	<i>Coffee break</i>	

Session 11 - GRUAN Governance & Management

Chair: Frédéric Vogt

11 - 1	11:00 - 11:15	GRUAN data usage hosting, serving and tracking (B4)	Simone Gagliardi
11 - 2	11:15 - 11:30	GRUAN 'data portal' and quality reports	Michael Sommer
11 - 3	11:30 - 11:45	Data Policy (B5)	Ruud Dirksen
11 - 4	11:45 - 12:00	Silent Stations (B6)	Fabio Madonna
11 - 5	12:00 - 12:20	Processing historical data (since 2010)	Fabio Madonna

12:20 - 13:30 LUNCH

Session 12 - Closing Remarks

Chair: Ruud Dirksen

12 - 1	13:30 - 14:15	ICM-15 Actions + agreement from ICM-15	Fabio Madonna
12 - 2	14:15 - 14:30	Change in WG co-chairs	
12 - 3	14:30 - 14:45	ICM-16	
12 - 4	14:45 - 15:00	Formal closure of ICM-15	WG co-chairs

FORUM/DISCUSSION 1 - Quality Assurance / GDP Interoperability & Consistency / Reprocessing GDPs or new GDP.

The goal of the forum is to share ideas to design the quality assurance program for GDPs including:

1. Requirements for GDPs and the related uncertainties, and homogeneity of data records also in view of a GRUAN trend analysis.
2. Requirements for consistency of GDPs and the related uncertainties
3. Design of an approach for the QC flagging of GRUAN data, also exploiting uncertainties.

A document outlining the triggers for the reprocessing of GRUAN GDP will be also discussed.

The session will start with two short presentations (3-4 slides) by

- Fabio Madonna: "Consistency and uncertainties of the GDPs"
- Michael Sommer: "Current quality check system in the production of GDPs"

FORUM/DISCUSSION 2 - Data Management and dissemination

The goal of the forum is to consolidate the GRUAN data Management and dissemination strategy by:

1. Identifying the GRUAN data distribution hub(s) (NCEI, PANGEA, C3S, LC facility)
2. Providing input to draft the data policy document considering also existing data licensing options (WMO res. 1, CC-BY, ...)
3. Improving automation for the data submission and management.

The session will start with two 10 minutes presentations:

- Current Data Management Plan (Michael Sommer)
- Overview on Data licensing options (Peter Thorne)

FORUM/DISCUSSION 3 - Intercomparisons

The goal of the forum is to:

1. Identify the lessons learnt in the 2022 UAI to share with the GRUAN community
2. Discuss the most recent progress made in the practice for multiple payload sounding
3. Review the Requirements for the sites to perform GDP parallel soundings and its impact on the network operations

The session will start two 15 min presentations by:

- Lesson learnt from the 2022 WMO UAI (Ruud Dirksen)
- GDP parallel sounding (contributions coordinated by TT Sites)

Breakout 1: GRUAN cooperative approach to access resource in support of network operations

Moderator: Peter Thorne

The breakout session will discuss the GRUAN proposal for the EUMETSAT validation campaign of MWI/ICI as well as other opportunities for funding different activities or subgroups of stations. The discussion aims also at identifying what are the real funding needs of the network and how to establish a cooperative approach to access funding.

Breakout 2: Design of a quality assurance framework and quality flagging system for GDPs

Moderator: Tom Gardiner

Upon discussion and input received during FORUM 1 and other discussions, the session aims at writing the draft of a document where the skeleton of the quality-assurance framework and quality flagging system for GDPs will be described. This initial document shall serve as the basis for a more structured document to submit to the WG-GRUAN for discussion and, after approval, to include in the updated GRUAN guide.