

2nd GRUAN Implementation-Coordination Meeting (ICM-2)

Payerne, Switzerland
2-4 March 2010

Item 1.1

Hosts:

- MeteoSwiss,
- Swiss GCOS Office at MeteoSwiss,
- U.S. GCOS Program Office at NOAA National Climatic Data Center (NCDC) [financial support],
- NOAA's Climate Program Office (CPO) [financial support],
- GCOS Secretariat [logistics support]

Organizers:

Peter Thorne (Chair, GCOS AOPC Working Group on Atmospheric Reference Observations), Holger Vömel (Head GRUAN Lead Centre), Stephan Bojinski, Anna Kuhn (GCOS secretariat), Bill Murray, Howard Diamond, Chris Miller (NOAA), Dominique Ruffieux, Rolf Philipona (MeteoSwiss)

Meeting goals:

Update on GRUAN progress and discussion of new developments, with a focus on:

- quality assurance, science, site issues, and collaboration with WMO;
- instigation of a detailed work plan for the Lead Centre, WG-ARO and other parties.

Meeting documentation:

- GRUAN Implementation Plan (GCOS-134) (basic document which all participants are **requested to read** in advance of the meeting)
- Documents supporting individual agenda items.

Meeting website (including all documents):

www.gruan.org: Meetings: Payerne 2010

Please note that all slots must include time for questions and answers / discussion.

Time	Item	Doc. No.	Presenter(s)
Monday 1 March - Pre-Meeting of WG-ARO (members and ex-officios only)			
13.00 Bus pick up from the hotels			
13.30 – 17.30	Discussion of WG issues, including 1. GRUAN organizational issues - governance of envisaged teams, coordination and reporting. 2. Lead Centre performance, resources, coordination and communication. 3. Broadening from an in-situ measurement focus 4. WIGOS participation, benefits and drawbacks. 5. Coordination with GSICS and other relevant programs 6. WG Terms of reference and membership 7. Gearing of national and international resources to support GRUAN		
Tuesday 2 March - 2nd GRUAN Implementation-Coordination Meeting (ICM-2) – DAY ONE			
07.45 / 07.55 Bus pick up from the hotels: 07.45 Hotel Elite – 07.55 Hotel de la Rose			
08.45 – 09.00	Welcome and logistics		Chair: Franz Berger
	Welcome note		G. Müller (Deputy Director MeteoSwiss)
	Local logistics		Dominique Ruffieux (MeteoSwiss)
09.00 – 09.45	Session 1: Update on progress since ICM-1		
09.00 – 09.15	GRUAN Implementation Plan (Roll out the structure of the meeting along IP chapters)		Peter Thorne; GCOS Secretariat staff

09.15 – 09.45	Lead Centre report on progress	1.2	GRUAN Lead Centre staff
09.45 – 11.00	Session 2: International programmes perspectives		
09.45 – 10.00	The GCOS Steering Committee perspective / US GCOS office perspective		Howard Diamond (US GCOS System Program Manager; NOAA/National Climatic Data Center)
10.00 – 10.20	The WMO Integrated Global Observing System (WIGOS)		Wenjian Zhang (Director WMO OBS Department)
10.20 – 10.40	The World Climate Research Programme (WCRP) Perspective		Ghassem Asrar (Director WCRP)
10.40 – 11.00	The Global Atmospheric Watch (GAW) Perspective		Johannes Stählerin
11.00 – 11.30	<i>Coffee</i>		
11.30 – 12.30	Session 3: Reference measurements		
11.30 – 12.15	Reference measurement specifications (Outline of proposed reference measurement methodology and case study of in-situ measurement technology)		Franz Immler
12.15 – 12.30	Discussion and formal adoption of reference measurement specifications		
12.30 – 16.30	Session 4: Research issues		
	4.1 Report by GRUAN Analysis Team for Network Design and Operations Research (GATNDOR)		
	GATNDOR Project Status Reports		
12.30 – 12.50	The GATNDOR Concept and Work Plan (10 min presentation + 10 min discussion)		Dian Seidel
12.50 – 13.10	Topic 1: Collocation of Observations (15'+5')		Dian Seidel
13.10 – 13.30	Topic 2: Management of Change (15'+5')		June Wang
13.30 – 14.30	<i>Lunch</i>		
14.30 – 14.50	Topic 3: Scheduling Protocol (10'+10')		Tom Gardiner
	GATNDOR in 2010 and Beyond (open discussion)		
14.50 – 15.00	Topic 4: Quantifying the Value of Complementary Observations		June Wang
15.00 – 15.15	Topic 5: Network Configuration - Lessons Learned from 2 Decades of NDACC Experience		Michael Kurylo
15.15 – 15.25	Open discussion on GATNDOR - Support for GATNDOR analyses - Mechanism for transitioning GATNDOR results to GRUAN decision-making and operations - Possible new GATNDOR topics - Relation between GATNDOR and GRUAN science/expert teams		Dian Seidel
15.25 – 15.40	Anticipated Climate Trends in Atmospheric Water Vapour: Opportunities for NDACC /GRUAN Collaboration?		David Whiteman (NASA/GSFC)
	4.2 Addressing research issues		
	Resolving the geographical collocation issue (addressing Topic 1)		
15.40 – 15.55	Impacts of Mismatch Between Radiosonde Launch and Satellite Observations: An Application of NPROVS		Tony Reale
15.55 – 16.10	FMI Sodankylä perspective	4.2.1	Rigel Kivi
	Managing instrument change (addressing Topic 2)		
16.10 – 16.25	ACRF perspective		Doug Sisterson, Jimmy Voyles
16.25 – 16.40	NCDC experience with USCRN		Russ Vose
16.40 – 17.00	<i>Coffee</i>		

17.00 – 18.30	Session 5: Site considerations and network composition		
	5.1 Implication of research issues on network		
17.00 – 17.45	Measurement needs for trend detection (Define remit of team to ascertain quantitatively defensible guidance for both in-situ and ground-based remote sensing temporal sampling requirements.)		Peter Thorne, Holger Vömel
	5.2 Assessment and certification		
17.45 – 18.30	The concept of assessment and certification in GRUAN (Discussion of site assessment, solicitation, offer assessment and certification issues to lead to formation of a group to address these issues as outlined in the Implementation Plan (cf Session 9))		Peter Thorne
20.00	<i>Workshop Dinner in Fribourg</i>		
Wednesday 3 March - 2nd GRUAN Implementation-Coordination Meeting (ICM-2) – DAY TWO			
07.45 / 07.55 Bus pick up from the hotels: 07.45 Hotel Elite – 07.55 Hotel de la Rose			
08.30 – 09.15	Session 6: Network protocols and documentation		Chair: Holger Vömel
08.30 – 08.45	Progress towards setting up a communication and reporting framework (To include blog, web page, and outline of other communications channels currently in operation and allow suggestions from participants as to how communication can be improved.)		Michael Sommer
	GRUAN Guide of Operations		
08.45 – 08.55	Progress to date		Anna Kuhn, Holger Vömel
08.55 – 09.15	WMO input		Miroslav Ondras, John Nash
09.15 – 13.30	Session 7: Site reports and discussion of open questions from sites		
09.15 – 09.35	Site inventory	7.1	Holger Vömel
09.35 – 13.30	Site reports		
<p>Session aims: To afford candidate sites to provide their perspectives, thoughts, and update on their status for the consideration of all workshop participants. (Sites / contributing programs will have 20’ each to lead discussions.)</p> <p>Sites are kindly requested to work their presentations around the following key themes:</p> <ol style="list-style-type: none"> 1. Which of your existing radiosonde launches already meet the mandatory requirements (GCOS 121: once weekly best production quality radiosonde, once monthly stratospheric water vapour; recommended twice daily), and which additional launches need to be instigated or augmented? 2. Which ground based measurements can you provide in addition to the mandatory GPS total water vapour column (microwave, FTIR, lidar, ...) and how can you use these additional observations to make sure that measurement uncertainty estimates will be consistent? 3. Do you have any limitations regarding the development of GRUAN launch protocols for routine and reference sonde launches (e.g. the use of auto-sonde launchers)? 4. Do you have any limitations regarding the development of uniform GRUAN data processing schemes for remote sensing observations? 5. What local analysis can you provide to assure that measurements uncertainties will be consistent across the network (Analysis of redundant observations either dual sonde launches or sonde + remote sensing observations)? 6. For sonde observations: Can you provide all raw data for central archiving? 7. For remote sensing observations: Will you be able to archive all raw data for possible future re-analysis and re-processing? 8. What help do you need from the Lead Centre / WG-ARO / GCOS Secretariat in moving forwards? 			

9. Will you be able to host local intercomparison campaigns (yet to be scheduled)?			
10. Are there any special infrastructure needs that should be addressed?			
As at ICM-1, sites are encouraged to provide written reports by no later than three weeks prior to the meeting for dissemination to meeting participants.			
09.35 – 09.55	Howard University - Beltsville, MD, USA	7.2.1	Belay Demoz, David Whiteman
09.55 – 10.15 <i>Coffee</i>			
10.15 – 10.35	NOAA, NCAR – Boulder, CO, USA	7.2.2	June Wang, Dale Hurst
10.35 – 10.55	ARM Climate Research Facilities – Barrow, AK, USA; Darwin, Australia; Lamont, OK, USA; Nauru, Republic of Nauru, Manus, Papua New Guinea	7.2.3	Doug Sisterson
10.55 – 11.15	Netherlands – Cabauw	7.2.4	Reinout Boers
11.15 – 11.35	New Zealand – Lauder	7.2.5	Paul Johnston
11.35 – 11.55	Switzerland – Payerne	7.2.6	Rolf Philipona
11.55 – 12.15	Italy – Potenza	7.2.7	Gelsomina Pappalardo
12.15 – 12.35	Finland – Sodankylä	7.2.8	Rigel Kivi
12.35 – 12.55	China - Xilinhot	7.2.9	CHEN Yongqing, LI Wei
12.55 – 13.15	Japan - Tateno	7.2.10	Hakaru Mizuno
13.15 – 13.30	Discussion		
13.30 – 14.30 <i>Lunch</i>			
14.30 – 14.50	The aerological station Payerne – future challenges		Bertrand Calpini
14.50 – 16.30	Payerne facility site visit (weather dependent)		
16.30 – 16.45 <i>Coffee break</i>			
16.45 – 18.00	Session 8: Data policy and dissemination		
16.45 – 17.15	Prototype concept; Results from Sept 09 Meeting at NCDC and ARM	8.1 8.2	Michael Sommer; Russ Vose
17.15 – 17.30	WMO Information System (WIS) concept; GTS		Timo Pröschooldt, Eliot Christian
17.30 – 18.00	Discussion		
Thursday 4 March - 2nd GRUAN Implementation-Coordination Meeting (ICM-2) – DAY THREE			
07.45 / 07.55 Bus pick up from the hotels: 07.45 Hotel Elite – 07.55 Hotel de la Rose			
08.30 – 10.30	Session 9: Management issues		Chair: Peter Thorne
08.30 – 10.30	Expert team instigation <ul style="list-style-type: none"> Parameter specific teams In situ sounding team (timing, instrument mix) Site expansion and certification team 		Holger Vömel
10.30 – 11.00 <i>Coffee</i>			
11.00 – 13.00	Session 10: Partnerships		
GRUAN WIGOS Pilot Project			
11.00 – 11.10	Working Group perspective		Peter Thorne
11.10 – 11.20	Lead Centre perspective		Holger Vömel
CIMO intercomparison			
11.20 – 11.40	Overview on the CIMO intercomparison campaign June 2010 in China		Tim Oakley
Other partnerships			
11.40 – 11.55	HMEI perspective		Bruce Sumner
11.55 – 12.15	GSICS perspective		Jerome Lafeuille
12.15 – 12.35	Satellite Product Validation Needs for Upper-Air Data		Marc Schröder
12.35 – 12.55	Global Climate Modelling Needs for Upper-Air Data		Johannes Quaas
12.55 – 13.15	The EMERGE project		Reinout Boers

13.15 – 14.00	<i>Lunch</i>		
14.00 – 16.00	Session 11: Wrap up		
14.00 – 16.00	Agree on actions and way forward – update of annual work plan		
	CLOSE OF ICM-2		
17.00 – 21.00	<i>CIMO intercomparison preparatory side meeting (by invitation only)</i>		
Friday 5 March - GRUAN Guide of Operations Expert Meeting (to be held at Hotel de la Rose, Fribourg, and by invitation only)			
08.30 – 13.00	Expert Meeting Session		Chair: Peter Thorne
	Briefing on current status and requirements		
08.30 – 09.00	WMO perspective		Miroslav Ondras
09.00 – 09.30	GRUAN perspective		Anna Kuhn, Holger Vömel
09.30 – 13.00	Setting up a work plan on how to develop a GRUAN Guide of Operations		all
13.00 – 13.45	<i>Lunch</i>		
13.45 – 15.00	Discussion on the way forward		all