

1st GRUAN Implementation-Coordination Meeting (ICM-1)
Norman, Oklahoma, USA
2-4 March 2009

Item 1.1

Hosts:

- US Department of Energy's Atmospheric Radiation Measurement (ARM) program Climate Research Facility (ACRF)
- ACRF Southern Great Plains (SGP) Site
- Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)
- U.S. GCOS Program Office at NOAA's National Climatic Data Center (NCDC) [financial support]
- NOAA's Climate Program Office (CPO) [financial support]
- GCOS Secretariat [logistics support]

Organizers:

Doug Sisterson (ARM programme),
Holger Vömel (Head Lead Centre),
Peter Thorne (Chair, Working Group),
Stephan Bojinski (GCOS Secretariat),
Howard Diamond (NOAA/NCDC),
Bill Murray (NOAA/CPO),
Chris Miller (NOAA/CPO)

Over-arching goals of this workshop:

- *Agree on the mode of operation of GRUAN*
- *Agree on actions to gain support from the scientific community, sponsors, and funding agencies.*

Time	Item	Doc. No.	Presenter(s)
Monday 2 March			
8.00 Departure of shuttle bus from the hotel			
8.30 – 9.00	1. Welcome and logistics		Chair: Peter Lamb
8.30 – 8.35	1.1 Adoption of agenda	1.1	
8.35 – 8.45	1.2 Welcome from CIMMS		Randy Peppler, Peter Lamb
8.45 – 8.50	1.3 Logistics	1.3	Randy Peppler, Tracy Reinke
8.50 – 9.00	1.4 The ARM program and GRUAN		Wanda Ferrell, ARM program director
9.00 – 10.15	2. Assessment of progress against action plan from GCOS-121, and int'l linkages	2.0	Chair: Ells Dutton
<i>Session aims:</i> To assess progress in GRUAN implementation since February 2008			
9.00 – 9.40	2.1 Brief overview of lead centre progress in addressing the 12 action items in GCOS-121	2.1	Lead Centre staff
9.40 – 9.45	2.2 Recommendations by GCOS, WMO and other int'l bodies regarding GRUAN implementation	2.2	Peter Thorne
9.45 – 10.15	2.3 Discussion		
10.15 – 10.30	<i>Coffee</i>		
10:30-17:30	3. How should we actually make GRUAN measurements?	3.0	Chair: Doug Sisterson
<i>Session aims:</i> To provide a generic set of actual requirements (NOT instrument specific) that any given observation must meet to be considered a GRUAN observation, and to provide a way forward to assess the quality of these observations.			
10.30 – 12.00	3.1 What final GRUAN observations may consist of and look like (raw data, metadata, uncertainty estimate)	3.1	Holger Vömel

12.00 – 13.00	<i>Lunch</i>		
13.00 – 14.00	3.2 Pre-deployment cal-val (what we need to understand for any instrument before deployment in the field as a potential GRUAN instrument)	3.2	Tom Gardiner
14.00 – 15.00	3.3 Routine cal-val (things we need to do periodically in the field to ensure we are not drifting)	3.3	John Dykema
15.00 – 15.30	<i>Coffee</i>		
15.30 – 16.30	3.4 Cross-checking against other measurement technologies / data to constrain uncertainty		Jimmy Voyles
16.30 – 17.30	3.5 The NDACC Working Group Structure (The idea of instigating variable expert teams to assist in this effort)	3.5	Mike Kurylo
18.30 – 19.30	<i>Reception</i>		
19.30 -	<i>Working Group dinner / discussion of general issues (self-funded)</i>		
Tuesday 3 March			
8.00 Departure of shuttle bus from the hotel			
8.30 – 10.00	4. Sites reports and discussion of status of network and composition	4.0	Chair: Stephan Bojinski
<i>Session aims:</i> To afford candidate sites to provide their perspectives, thoughts, and update on their status for the consideration of all workshop participants.			
<u>Questions to be addressed by all sites:</u>			
1. Operations:			
a) What is the site status in respect of the requirements outlined in GCOS-121 and GCOS-112 (priority 1 and 2)?			
b) Which guidelines/manuals do you use when taking measurements, if any?			
c) What is your data dissemination practice?			
2. Needs: What do you need from lead centre / working group / secretariat?			
3. News: Are there any scientific or organizational developments we should be aware of?			
8.30 – 8.40	4.1 Howard University - Beltsville, MD, USA	4.1	Belay Demoz, David Whiteman
8.40 – 8.50	4.2 NOAA, NCAR – Boulder, CO, USA		June Wang, Samuel Oltmans, Dale Hurst
8.50 - 9.00	4.3 ARM Climate Research Facilities – Barrow, AK, USA; Darwin, Australia; Lamont, OK, USA; Nauru , Republic of Nauru		Doug Sisterson
9.00 – 9.10	4.4 Netherlands - Cabauw	4.4	Reinout Boers
9.10 – 9.20	4.5 New Zealand - Lauder	4.5	Paul Johnston
9.20 – 9.30	4.6 Switzerland - Payerne	4.6	Rolf Philipona
9.30 – 9.40	4.7 Italy - Potenza	4.7	Vicenzo Cuomo
9.40 – 9.50	4.8 Finland - Sodankylä		Esko Kyrö, Rigel Kivi
9.50 – 10.00	4.9 China - Xilinhot		Kejun Wu, Yi Xiong
10.00 – 10.10	4.10 Wrap-up & Conclusions		
10.15 – 18.00	Site visit to ACRF		
19.30 -	<i>Conference dinner (self-funded)</i>		
Wednesday 4 March			
8.00 Departure of shuttle bus from the hotel			
8.30 – 10.00	5. Data dissemination and data policy	5.0	Chair: John Dykema
<i>Session aims:</i> To discuss in detail data dissemination models to consider, progress in exploring the offer of in-kind support from DoE and NOAA and to inform a push towards resolving this issue.			
8.30 – 9.00	5.1 Outline of progress to date	5.1	Michael Sommer
9.00 – 9.15	5.2 ARM program input		Doug Sisterson, J. Voyles

9.15 – 9.30	5.3 NCDC input		Russ Vose
9.30 – 9.35	5.4 WMO Information Systems perspective	5.4	GCOS Secretariat
9.35 – 10.00	5.5 Discussion		
10.00 – 10.15 <i>Coffee</i>			
10.15 – 11.30	6. Discussion on preparations towards planned radiosonde intercomparison	6.0	Chair: Dian Seidel
<i>Session aims:</i> To update on preparations for an envisaged major intercomparison between both operational and candidate reference radiosondes in 2010.			
10.15 – 10.30	6.1 Perspective		John Nash
10.30 – 10.40	6.2 Overview of radiosonde requirements document supplied to HMEI	6.2	Masatomo Fujiwara
10.40 – 10.50	6.3 The LUAMI test-campaign	6.3	Franz Immler
10.50 – 11.30	6.4 Discussion		
11.30 – 12.30 7. Observing manual discussion Chair: Franz Berger			
<i>Session aims:</i> To discuss progress to date on collating existing observational manual literature, on the planned structure and on the optimal method of development of a final observing manual.			
11.30 – 11.50	7.1 Current manual draft	7.1	GCOS Secretariat
11.50 – 12.10	7.2 Lead Centre view		Holger Vömel
12.10 – 12.30	7.3 WMO Perspective	7.3	John Nash, M. Ondras
12.30 – 13.30 <i>Lunch</i>			
13.30 – 15.00	8. Should GRUAN become a WIGOS-PP project?		Chair: Howard Diamond
<i>Session aims:</i> It has been suggested that GRUAN become a WIGOS (WMO Integrated Global Observing Systems) PP (Pilot Project) either in part or in full. This session aims to engender discussion and a decision to this end.			
13.30 – 13.40	8.1 GRUAN and the WMO Observing Systems	8.1	GCOS Secretariat
13.40 – 14.10	8.2 What is WIGOS, what is a WIGOS-PP and why should GRUAN be one?	8.2	James Purdom (by phone)
14.10 – 14.25	8.3 Experiences from current WIGOS PP projects – benefits and potential draw backs	8.3	John Nash, Miroslav Ondras
14.25 – 15.00	8.4 Discussion of whether GRUAN should be a WIGOS-PP.		
15.00 – 15.15 <i>Coffee</i>			
15.15 – 15.30	9. Forthcoming meetings / activities of interest		Chair: Peter Thorne
	9.1 International Symposium on Tropospheric Profiling		Reinout Boers
	9.2 Opportunities for others to raise important meetings / activities to discuss how to ensure GRUAN is adequately represented		
15.30 – 17.00	10. Wrap up and agreement on action items arising		Chair: Peter Thorne
17.00	CLOSE		