



WMO/IOC/UNEP/ICSU  
GLOBAL CLIMATE OBSERVING  
SYSTEM (GCOS)

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**11th GRUAN Implementation-  
Coordination Meeting (ICM-11)**

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Session 3

Singapore  
20 - 24 May 2019

## Task Team Progress Report for April 2019 – Sites

*(Submitted by Dale Hurst and Belay Demoz)*

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### **Summary and Purpose of this Document**

Progress report from the task team on Site Intercommunication and Reporting.

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# Task Team of Site Representatives (TT Sites) Progress Report for April 2019

## Members (as at 2019-03-15)

Site	Name	Status
Beltsville, USA	Belay B. Demoz	Co-chair
Boulder, USA	Dale Hurst	Co-chair
Cabauw, Netherlands	Arnoud Apituley	
Lauder, New Zealand	Richard Querel	
Sodankylä, Finland	Rigel Kivi	
Potenza, Italy	Fabio Madonna	
Payerne, Switzerland	Giovanni Martucci	
Tateno, Japan	Osamu Narita	
Syowa, Japan	Yoshinobu Tanaka	
Minamitorishima, Japan	Kenji Suzuki	
AWI/ Ny-Ålesund, Norway	Marion Maturilli	
ARM Sites, USA	Nicki Hickmon	
Xilinhot, China	Rongkang Yang	
Lindenberg, Germany	Ruud Dirksen	
Australian sites	Matt Tully	
Réunion Island, France	Stephanie Evan	
Singapore	Shwei Lin Wong	
Dolgoprudny, Russia	Nadeschda Krestyanikova	
Paris, France	Jean-Charles Dupont	
Tenerife, Spain	Miguel Hernández Martínez de la Peña	

## Site Representative Changes

- Payerne - Giovanni Martucci replaced Dominique Ruffieux
- ARM Sites - Doug Sisterson retired
- Jean-Charles Dupont replaced Martial Haefelin
- Tateno - Osamu Narita replaced Toshihiro Abo
- Syowa - Yoshinobu Tanaka
- Minamitorishima - Kenji Suzuki

## Action Items from ICM-10

**(A2)** Ensuring all profile data from multi-sonde payloads are in archive: LC to advise each site of current database archive status of these soundings. Sites not currently archiving data from sondes other than GRUAN-certified radiosondes to advise LC and, where possible, provide LC with the additional data. LC to ensure these additional data are associated with such launches. Known cases: Payerne, Modem multi-payload launches

**Who?** TT Sites; Lead Centre **By When?** September 2018

**Status:** In Progress (LC to report on progress)

Data from dual RS92-RS41 launches are in the archive and new soundings are added automatically. Data from non-GRUAN sites requires human archival. LC to identify sites who have submitted only subsets and ask them to submit all data. This includes at least Sodankyla (additional CFH and ECC), Payerne (SRS and possibly radiation), and Tateno (many radiosonde combinations and CFH). Importation of dual comparison flights at Rothera, Camborn, St. Helena, Darwin, SGP (RIVAL), Barrow, Graciosa and Palau (AWI) is work in progress. D. Smyth now has login credentials to access dual sounding data on GRUAN ftp server.

**(A3)** Parallel soundings database augmentation with satellite/ancillary: Augment parallel soundings of RS92-RS41 with satellite co-locations and ancillary measurements (CFH, FPH, lidar, MWR, satellites, cloud observations incl. BSRN) within 2 hours. Sites to identify instrument streams available within 2 hr of existing and planned parallel launches. TT ancillary to provide advice on suitability and provide satellite matchups (e.g., closest?). WG Chair to coordinate, LC to receive and archive.

**Who?** TT Ancillary; TT Sites; LC **By When?** October 2018 (RIVAL), April 2019 (All sites)

**Status:** In Progress (LC to report on progress)

Some sites have dedicated soundings coordinated with satellite overpasses that are submitted to the GRUAN Archive. Sites have not identified instrument streams although at some sites data are collected by MWR and other instrumentation. LC reports no progress to date on submissions of ancillary data. Better guidance is needed on how ancillary data are to be submitted.

**(A5)** Scheduling by conditions: LC to work with sites to fill the low solar elevation angle hole in the current set of dual launches with a lack of dawn / dusk ascents.

**Who?** Lead Centre; TT sites **By When?** ICM-11

**Status:** In Progress.

LC participated in campaign on Reunion Island to perform RS92-RS41 soundings at 90 solar elevation angle (zenith). No progress to date on soundings at dawn/dusk.

**(A7)** Hard to soft casing: LC to undertake a number of RS41 dual launches for comparison between hard and soft casing and archive as part of the dual soundings archive. Other sites that wish to ascer-

tain the impact to also submit to the archive.

**Who?** Lead Centre; TT sites **By When?** ICM-11

**Status:** In progress

At ICM-10, NWS Sterling reported on this comparison - no differences were found. LC has performed 10 RS41 dual soundings and plans for 10 more.

**(C1)** Sites photos: Technical note providing guidance on site survey photos and upload instructions. Current site photos to be uploaded to appropriate area of GRUAN website. GCOS Secretariat to then discuss with WIGOS inclusion into OSCAR surface metadata database. LC to instigate mechanism to remind sites to submit new photos. Ensure that all GRUAN sites have WIGOS identifiers and metadata within OSCAR surface.

**Who?** WG Chair; TT Sites; Lead Centre; GCOS Secretariat **By When?** June 2018

**Status:** In progress.

D. Smyth, B. Demoz and D. Hurst revised original documentation. TN is now in review by WG and will soon be revised and circulated to site representatives for them to begin.

**(C3)** Generalisation of overpass information: Augment the current golden overpass emails so they show (in addition) appropriate information on polar orbiter overpasses to enable sites to also be able to target these overpass times should they wish to do so.

**Who?** TT Ancillary; F. Madonna; T. Reale; LC; TT Sites; A. von Engeln **By When?** August 2018

**Status:** In progress

Time resolution of overpass data file increased from 60s to 5s (30 km separation between consecutive sub-satellite points). Info on overpasses of polar orbiters (MetOp A-C) is included in overpass/collocation emails. Overpass info of NOAA polar orbiters still has to be included

**(C5)** Annually based reporting: LC to provide automated reports on annual performance of sites no later than 20 January of each year. Sites to append site report no later than 15 February to inform the ICM. WG-GRUAN members to read site reports prior to ICM.

**Who?** TT Sites; Lead Centre; WG-GRUAN **By When?** February 2019

**Status:** In progress

(12 March) Reports are nearly finished before distribution to site managers. Slight delay because of priority to finish developing the alpha version of RS41 data product.

**(C6)** Letters on behalf of sites: WG-GRUAN chair to review site reports and initiate letters from appropriate parties. TT sites to advise any additional requests as they arise.

**Who?** WG Chair; TT Sites; Lead Centre; GCOS Secretariat **By When?** June 2018

**Status:** In progress

Letters sent on behalf of Potenza and Lauder. Letters for Beltsville, Sodankyla and Australian sites are in progress.

**(C12)** Usage of GRUAN data: Investigate and instigate appropriate usage metrics to support sites in making the case for continued GRUAN participation.

**Who?** WG Chair, TT sites **By When?** ICM-11

**Status:** In progress

Bibliography listing forward-citations of Bodeker et al. (2016), Dirksen et al. (2014), Immler et al. (2010) and Seidel et al. (2009) forwarded to LC to update GRUAN website. D. Smyth looking at Scopus, Mendeley, Google Scholar and others. Discuss with F. Madonna for tracking C3S usage. T. Reale writing paper describing STAR/NPROVS use of GRUAN data.