



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

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**14th GRUAN Implementation-
Coordination Meeting (ICM-14)**

Session 5

La Réunion

28 November - 02 December 2022

GRUAN Site Report for Darwin

(Submitted by Andrew Winchester)

Summary and Purpose of this Document

Report from the GRUAN site Darwin for the period January to December 2021.

Overview

Upper Air BUFR data not currently sent to GRUAN.

Change and change management

No changes

Resourcing

Frostpoint hygrometer soundings not currently funded.

Operations

Darwin is not using the RsLaunchClient to submit data, as with all other Bureau sites. No frostpoint hygrometer soundings as they are not currently funded. The site launches 1 x 500g balloon at 23Z and 1x 350g at 11Z daily. Burst heights occasionally reach 10hPA, with a mean around 14 hPa. Currently a semi automated launching system (RBL Bureau design) which is planned to be replaced with a Vaisala AS41 in future years.

Covid-19

No noticeable effects

Site assessment and certification

Unsure primarily due to problems with data transfer and use of RsLaunchClient. Bureau security will not permit the use of RsLaunchClient on our systems. We could provide the .mwx files for each sounding however unclear whether there is benefit in this, given there would be no attached meta data from the RsLaunchClient software.

GRUAN-related research

None

WG-GRUAN interface

None

Other archiving centres

GUAN

Participation in campaigns

None

Future plans

No changes planned for the current year, however the site is expected to be replaced with an automated system in 2-4 years. Once this occurs there will be no possibility of frostpoint hygrometer soundings using the auto launcher.



GRUAN Site Report for Darwin (DAR), 2021

Reported time range is Jan 2021 to Dec 2021

Created by the Lead Centre

Version from 2022-11-15

1 General GRUAN site information

Object	Value
Station name	Darwin
Unique GRUAN ID	DAR
Geographical position	-12.4300 °S, 130.8900 °E, 30.0 m
Operated by	BOM Australian Bureau of Meteorology
Main contact	Tully, Matthew
WMO no./name	94120 DARWIN
Operators	currently 0, changes +0 / -0
Sounding Site	1
GNSS	1

1.1 General information about GRUAN measurement systems

System	Name	Type	Setups	Measurements
DAR-GN-01	GNSS Site SA39	GNSS	0	not operational
DAR-RS-01	Darwin radiosonde launch site	Sounding Site	2	0

1.2 General comments from Lead Centre

1.2.1 General

No dataflow to GRUAN LC has been established yet.

1.2.2 Request

Due to the prolonged absence of data submission to the Lead Centre, this site is considered a silent site. Following the silent-site policy discussed at ICM-13, the site is requested to take the necessary steps to establish an operational data flow. In this regard, the establishment of an operational data stream for the radiosoundings has the highest priority, followed by data submission of GNSS water vapor measurements.

2 System: GNSS Site SA39 (DAR-GN-01)

Object	Value
System name	GNSS Site SA39
Unique GRUAN ID	DAR-GN-01
System type	GNSS (GN - GNSS)
Geographical position	-12.4246 °S, 130.8916 °E, 84.9 m
Operated by	BOM Australian Bureau of Meteorology
Instrument contact	Tully, Matthew
Started at	-
Defined setups	-
Possible streams	-

2.1 Lead Centre comments

2.1.1 Dataflow

No GNSS dataflow to LC has been established yet.

3 System: Darwin radiosonde launch site (DAR-RS-01)

Object	Value
System name	Darwin radiosonde launch site
Unique GRUAN ID	DAR-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	-12.4239 °S, 130.8925 °E, 30.4 m
Operated by	BOM Australian Bureau of Meteorology
Instrument contact	Tully, Matthew
Started at	-
Defined setups	2 (ROUTINE, DUAL1)
Possible streams	RS41, RS92

3.1 Lead Centre comments

3.1.1 Dataflow

No dataflow of radiosonde measurements to LC has been established yet.