



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

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**12th GRUAN Implementation-
Coordination Meeting (ICM-12)**

Session 1

Virtual

16 - 20 November 2020

GRUAN Site Report for Darwin

(Submitted by Matt Tully)

Summary and Purpose of this Document

Report from the GRUAN site Darwin for the period January to December 2019.

Overview

Regular twice-daily radiosonde launches are currently performed at Darwin Airport. Daily total column ozone measurements are also made (Dobson), and a small number of Umkehr ozone profiles.

Change and change management

The transition from Vaisala RS92 to RS41 took place on 1 July 2018. An intercomparison campaign was conducted in the dry season consisting of approximately 60 flights, 20 x 11Z (night), 30 x 23Z (day-time) and 10 x 05 Z. Data from the intercomparison has been submitted to the GRUAN Lead Centre, and results were reported at ICM-11.

Resourcing

Nil at present.

Operations

Balloon launches are made with a “Remote Balloon Launcher” which offers limited capacity. The RsLaunchClient is not yet being used. Raw data has been submitted to the GRUAN Lead Centre.

Site assessment and certification

Not yet certified.

GRUAN-related research

NIL

WG-GRUAN interface

NIL

Other archiving centres

GUAN, WOUDC (total ozone), BSRN (Solar Radiation), NDACC (total ozone)

Participation in campaigns

NIL

Future plans

It is still hoped to fly further dual RS41/RS92 intercomparison flights although to date this has not been supported by management. It is expected that an automated balloon launcher will be installed in the next few years.



GRUAN Site Report for Darwin (DAR), 2019

Reported time range is Jan 2019 to Dec 2019

Created by the Lead Centre

Version from 2020-11-05

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.

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.