



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

Doc. 1.06  
(14.V.2021)

---

**13th GRUAN Implementation-  
Coordination Meeting (ICM-13)**

---

Session 1

Virtual

15 November - 19 November 2021

## 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 2020.

---



## **Overview**

Regular twice-daily radiosonde launches are currently performed at Darwin Airport (11Z and 23Z). 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.

## **Covid-19**

No impact.

## **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. Supplies of RS92s have been put aside for this campaign but to date have not been used. It is expected that an automated balloon launcher will be installed in the next few years. A Brewer spectrometer will be installed in the next few months.



# GRUAN Site Report for Darwin (DAR), 2020

Reported time range is Jan 2020 to Dec 2020

Created by the Lead Centre

Version from 2021-04-27

## 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)

<b>Object</b>	<b>Value</b>
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)

<b>Object</b>	<b>Value</b>
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.