

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

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Session 1

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

Virtual
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# 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	Туре	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.