



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

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**15th GRUAN Implementation-
Coordination Meeting (ICM-15)**

Session 5

Bern

11 March - 15 March 2024

GRUAN Site Report for Macquarie Island

(Submitted by Andrew Winchester)

Summary and Purpose of this Document

Report from the GRUAN site Macquarie Island for the period January 2022 to December 2023.

Overview

Macquarie Island is currently performing 2 soundings a day at 23Z and 11Z, however due to internal security issues we are unable to provide the required data to GRUAN.

Change and change management

Vaisala RS41-SG radiosondes have been in use since 2019 with no foreseeable change, however we are likely to move to the RS41-SGE (biosonde) by the beginning of 2025. No resourcing or equipment changes planned.

Resourcing

Currently funded to release 2 radiosondes a day, with 3 staff on site all year round.

Operations

The 23Z uses 800g balloons and consistently reaches 10 hPa, more often 5hPa or better. The 11Z flights use 500g balloons and reach heights 10-20 hPa in summer, but reduces significantly to 20-60 hPa. The Bureau is unlikely to perform frostpoint hygrometer soundings in the short term due to funding. At this stage we are not using RsLaunchClient due to internal security restrictions.

Covid-19

NIL impact

Site assessment and certification

NA

GRUAN-related research

NIL

WG-GRUAN interface

NIL. I have forwarded requests to management to properly support the GRUAN network however at this stage we do not have the ability to submit data that meets GRUAN requirements.

Other archiving centres

GUAN

Participation in campaigns

NIL

Future plans

Automation of the balloon launches using AS41



GRUAN Site Report for Macquarie Island (MAQ), 2022

Reported time range is Jan 2022 to Dec 2022

Created by the Lead Centre

Version from 2024-03-01

1 General GRUAN site information

Object	Value
Station name	Macquarie Island
Unique GRUAN ID	MAQ
Geographical position	-54.4994 °S, 158.9369 °E, 6.0 m
Operated by	BOM Australian Bureau of Meteorology
Main contact	Winchester, Andrew
WMO no./name	94998 MACQUARIE ISLAND
Operators	currently 0, changes +0 / -0
Sounding Site	1

1.1 General information about GRUAN measurement systems

System	Name	Type	Setups	Measurements
MAQ-RS-01	Macquarie Island radiosonde launch site	Sounding Site	2	0

1.2 General comments from Lead Centre

1.2.1 General

No operational data stream has been established yet.

1.2.2 Request

In view of the prolonged absence of data submission to the Lead Centre, the site is encouraged to take the necessary steps to establish an operational data flow. In this regard, establishing a data stream for the radiosoundings has priority, followed by data submission of GNSS water vapor measurements.

2 System: Macquarie Island radiosonde launch site (MAQ-RS-01)

Object	Value
System name	Macquarie Island radiosonde launch site
Unique GRUAN ID	MAQ-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	-54.4994 °S, 158.9369 °E, 6.0 m
Operated by	BOM Australian Bureau of Meteorology
Instrument contact	Winchester, Andrew
Started at	-
Defined setups	2 (ROUTINE, OZONE)
Possible streams	RS92

2.1 Lead Centre comments

2.1.1 Dataflow

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



GRUAN Site Report for Macquarie Island (MAQ), 2023

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