



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

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Doc. 6.10  
(6.III.2014)

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**6th GRUAN Implementation-  
Coordination Meeting (ICM-6)**

Session 6

Greenbelt, USA

10 March – 14 March 2014

## GRUAN Station Report for Nauru

*(Submitted by Lead Centre)*

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### Summary and Purpose of Document

Report from the GRUAN station Nauru for the period Nov 2012 to Oct 2013.

*Note: For all ARM sites, the station report from the site representative is presented in Doc 6.06: "GRUAN Station Report for Lamont (SGP)".*

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# GRUAN Station Report for Nauru (NAU), 2013

Reported time range is Nov 2012 to Oct 2013

Created by the Lead Centre

Version from 2014-02-20

## 1 General GRUAN station information

Info	Value
Station name	Nauru
Unique GRUAN ID	NAU
Geographical position	-0.5200 °S, 166.9200 °E, 7.0 m
Operated by	ARM   US DOE Atmospheric Radiation Measurement (ARM) Program
Main contact	Sisterson, Doug
WMO no./name	91532 NAURU
Operators	current 0, change +0 / -0
Sounding Site	1
GNSS	1

### 1.1 General information about GRUAN measurement systems

System	Type	Setups	Measurements	As scheduled
NAU-GN-01	GNSS	0	0	not scheduled
NAU-RS-01	Sounding Site	1	566	not scheduled

### 1.2 General comments from Lead Centre

#### 1.2.1 General

This site was closed by ARM as of August 2013.

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## 2 System: GNSS Site SA40 (NAU-GN-01)

<b>Info</b>	<b>Value</b>
System name	GNSS Site SA40
Unique GRUAN ID	NAU-GN-01
System type	GNSS (GN - GNSS)
Geographical position	-0.5206 °S, 166.9164 °E, 50.0 m
Operated by	ARM   US DOE Atmospheric Radiation Measurement (ARM) Program
Instrument contact	Sisterson, Doug
Started at	-
Defined setups	-
Possible streams	-

### 2.1 Lead Centre comments

#### 2.1.1 General

No GNSS dataflow to GRUAN LC.

### 3 System: Balloon-Borne Sounding System (SONDE) (NAU-RS-01)

Info	Value
System name	Balloon-Borne Sounding System (SONDE)
Unique GRUAN ID	NAU-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	-0.5200 °S, 166.9200 °E, 7.0 m
Operated by	ARM   US DOE Atmospheric Radiation Measurement (ARM) Program
Instrument contact	Sisterson, Doug
Started at	-
Defined setups	1 (ROUTINE)
Possible streams	RS92

#### 3.1 Lead Centre comments

##### 3.1.1 Dataflow

Dataflow was running completely automated from the ARM Archive to the GRUAN LC. The launch metadata were not manually checked and the operator-influence of launches were not recorded. Equipment changes (e.g. balloon, unwinder, ...) were not recorded.

##### 3.1.2 Data quality

Only few data processing issues (corrupt files or unknown issues).

Three quarters of all measurements pass GRUAN Quality Control routines with a 'checked' label, largely due to uncertainty inconsistencies in pressure and humidity.

In some soundings the ground check is missing all together. These soundings could not be processed and received a GRUAN label 'rejected'.

GC25 ground check corrections were NOT within expected limits. The corrections for pressure, temperature and relative humidity were largely around 0.0, which is untypical for this system. A possible cause could have been that the radiosonde data themselves were used as reference value.

#### 3.2 GRUAN data products

Product	Version	Soundings received	Available at LC	Distributed by NCDC
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##### 3.2.1 Stream: RS92

RS92		566	566	
RS92-RAW	001		550	
RS92-GDP	001		497	
RS92-GDP	002		476	70

#### 3.3 Data quality of current GRUAN data products

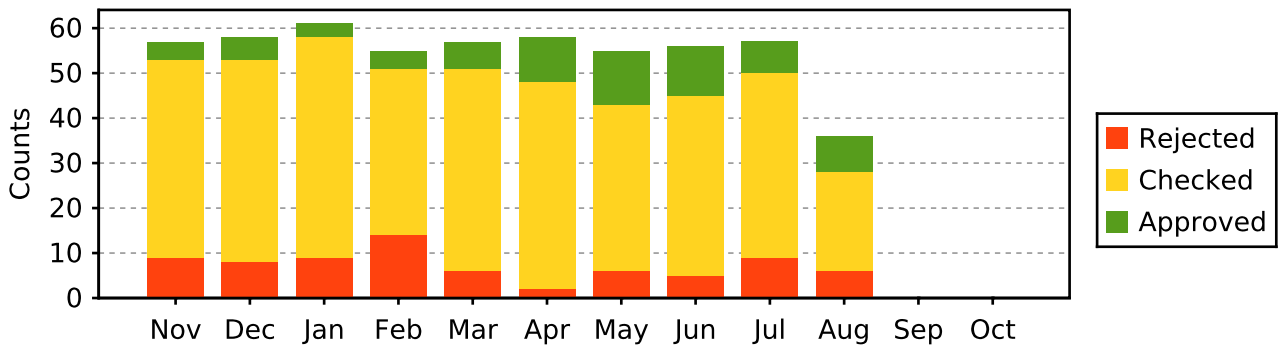
Month	Count	GRUAN Data Quality			Issues				
		Approved	Checked	Rejected	Meta-data	Process.	Press	Temp	RH

Month	Count	GRUAN Data Quality			Issues				
		Approved	Checked	Rejected	Meta-data	Process.	Press	Temp	RH

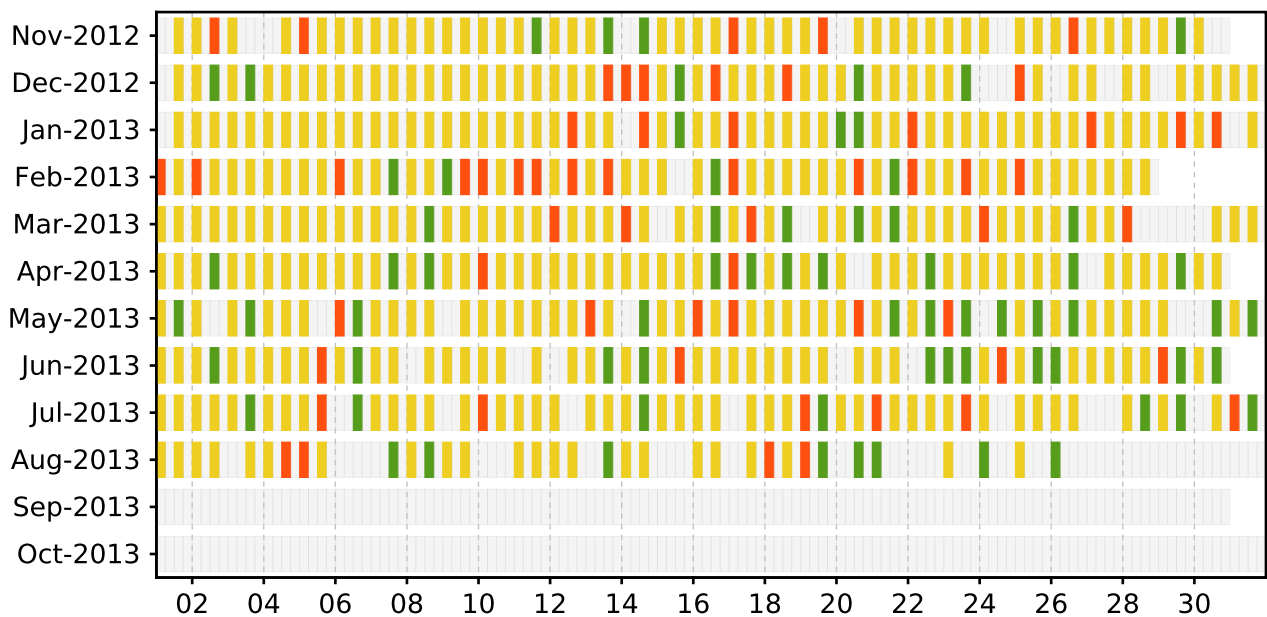
3.3.1 Stream: RS92 (Product: RS92-GDP-002)

Nov 12	57	4	44	9		1	8	4	42
Dec 12	58	5	45	8		2	6	5	45
Jan 13	61	3	49	9			8	3	50
Feb 13	55	4	37	14			5	9	37
Mar 13	57	6	45	6		2	6	8	46
Apr 13	58	10	46	2			4	6	44
May 13	55	12	37	6			5	3	36
Jun 13	56	11	40	5		1	4	5	39
Jul 13	57	7	41	9			4	7	41
Aug 13	36	8	22	6			3	3	22
Sep 13									
Oct 13									
	<b>550</b>	<b>70</b>	<b>406</b>	<b>74</b>		<b>6</b>	<b>53</b>	<b>53</b>	<b>402</b>

Data quality statistic of stream RS92



Schedule data quality of stream RS92



3.4 Instrument combinations of NAU-RS-01

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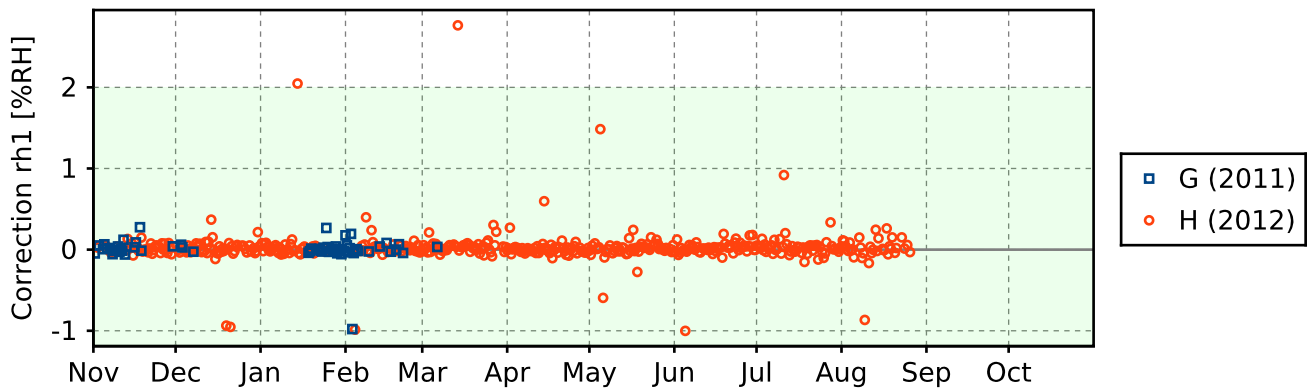
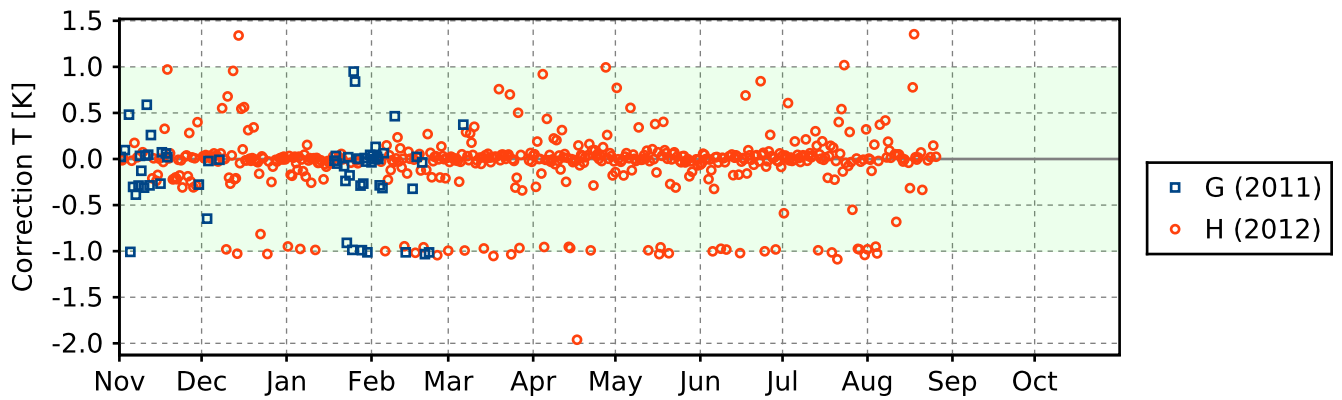
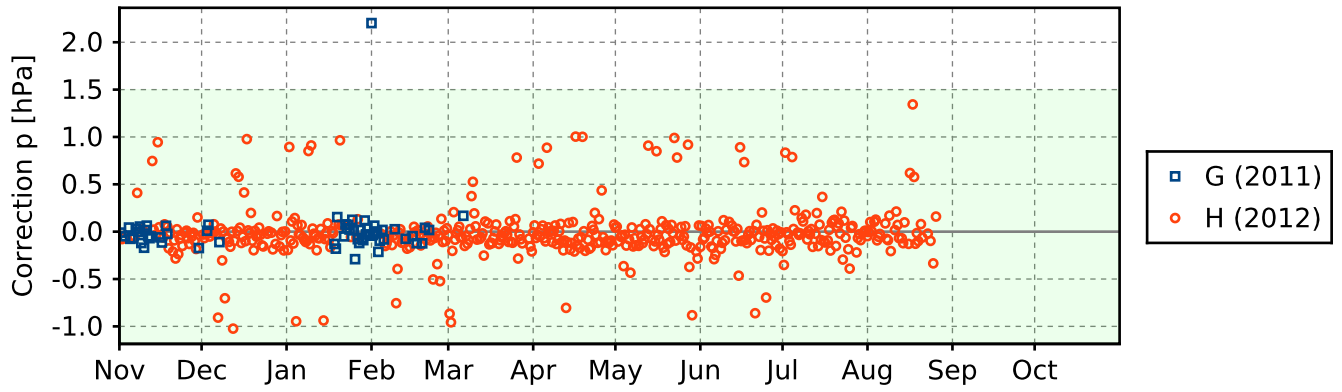
Count	Instrument combination
566	RS92

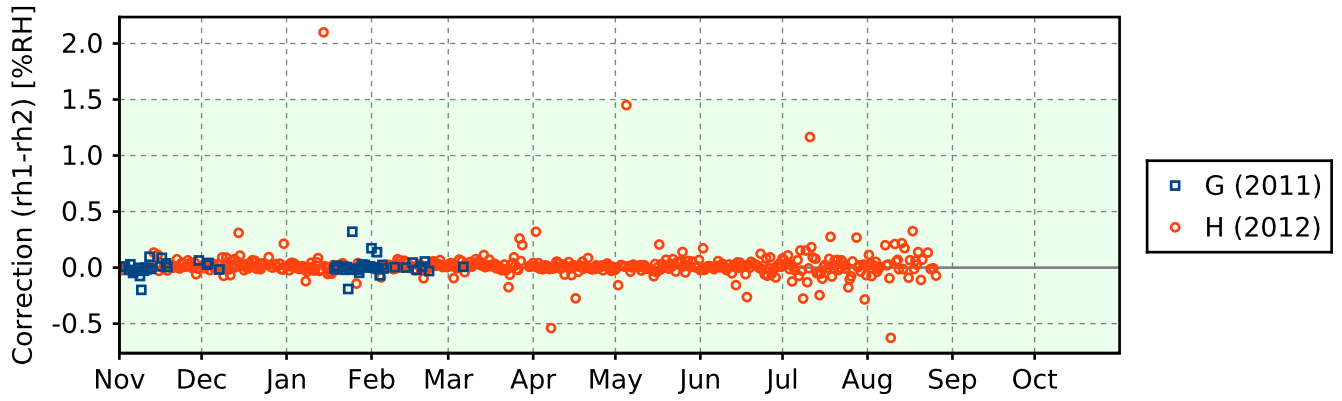
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### 3.5 Instrument ground check

#### 3.5.1 Stream: RS92

##### 3.5.1.1 GroundCheck: GC25





3.5.1.2 GroundCheck: SHC

