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

Doc. 6.04
(6.III.2014)

6th GRUAN Implementation-Coordination Meeting (ICM-6)
Greenbelt, USA
10 March – 14 March 2014

Session 6

GRUAN Station Report for Cabauw

(Submitted by Lead Centre)

Summary and Purpose of Document

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

GRUAN Station Report for Cabauw (CAB), 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	Cabauw
Unique GRUAN ID	CAB
Geographical position	51.9700 °N, 4.9200 °E, 1.0 m
Operated by	KNMI | Koninklijk Nederlands Meteorologisch Instituut
Main contact	Apituley, Arnoud
WMO no./name	-
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
CAB-GN-01	GNSS	0	0	not scheduled
CAB-RS-01	Sounding Site	1	467	63.97 %

1.2 General comments from Lead Centre

1.2.1 General

It is strongly recommended that the site uses the RsLaunchClient to transmit data to the Lead Centre.

The site uses a Standard Humidity Chamber in its launch preparation, but these data are not transmitted to the Lead Centre. Using the RsLaunchClient will allow proper transmission of these data.

The site is requested to transmit ECC ozone soundings with complete metadata matching an ECC ozone sonde and not to transmit it as routine radiosounding.

1.2.2 GTS

This site regularly sends PTU measurements in the GTS (BUFR format, 2s resolution, once per day).

2 System: GNSS Site CABW (CAB-GN-01)

Info	Value
System name	GNSS Site CABW
Unique GRUAN ID	CAB-GN-01
System type	GNSS (GN - GNSS)
Geographical position	51.9690 °N, 4.9260 °E, 2.4 m
Operated by	KNMI | Koninklijk Nederlands Meteorologisch Instituut
Instrument contact	Apituley, Arnoud
Started at	-
Defined setups	-
Possible streams	-

2.1 Lead Centre comments

2.1.1 General

No GNSS dataflow to GRUAN LC as yet.

3 System: Radiosonde Launch Site (De Bilt) (CAB-RS-01)

Info	Value
System name	Radiosonde Launch Site (De Bilt)
Unique GRUAN ID	CAB-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	52.1000 °N, 5.1800 °E, 1.0 m
Operated by	KNMI | Koninklijk Nederlands Meteorologisch Instituut
Instrument contact	Apituley, Arnoud
Started at	-
Defined setups	1 (ROUTINE)
Possible streams	RS92

3.1 Lead Centre comments

3.1.1 Change management

The sounding schedule was changed from two launches per day to one launch per day in January 2013. The GRUAN LC was properly informed about this change event.

3.1.2 Dataflow

Data from De Bilt to the GRUAN LC are flowing fully automated since January 2011. The launch metadata are not manually checked and the operator-influence of launches are not recorded. Equipment changes (e.g. balloon, unwinder, …) are not recorded.

As a consequence it is essential that the Lead Centre is notified of all upcoming changes to be able to maintain a correct metadata record.

3.1.3 Data quality

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

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

An additional ground check SHC (Standard Humidity Chamber) is used for all ECC launches. However, the RsLaunchClient is not used and SHC ground check data are not transmitted to the Lead Centre.

Weekly ECC launches are incorrectly recorded as Vaisala RS92 routine soundings without ECC sonde.

3.2 GRUAN data products

Product	Version	Soundings received	Available at LC	Distributed by NCDC

3.2.1 Stream: RS92

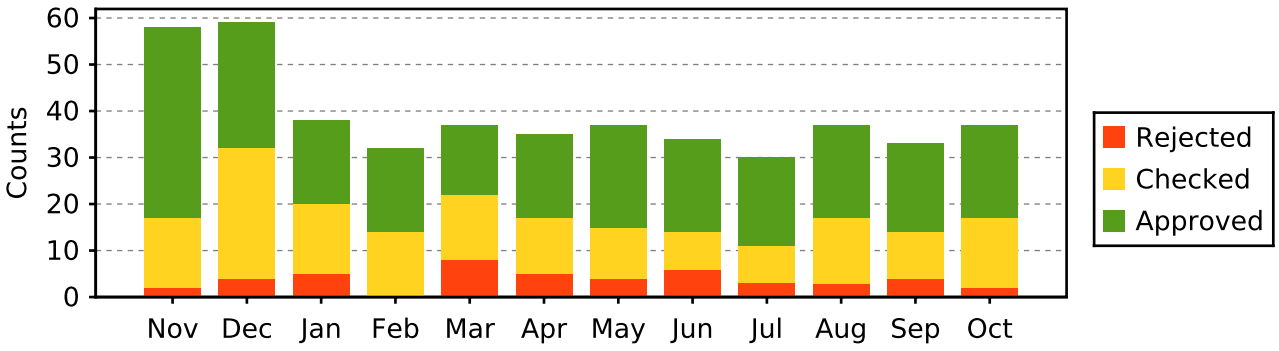
RS92		467	467	
RS92-RAW	001		467	
RS92-GDP	001		453	
RS92-GDP	002		421	257

3.3 Data quality of current GRUAN data products

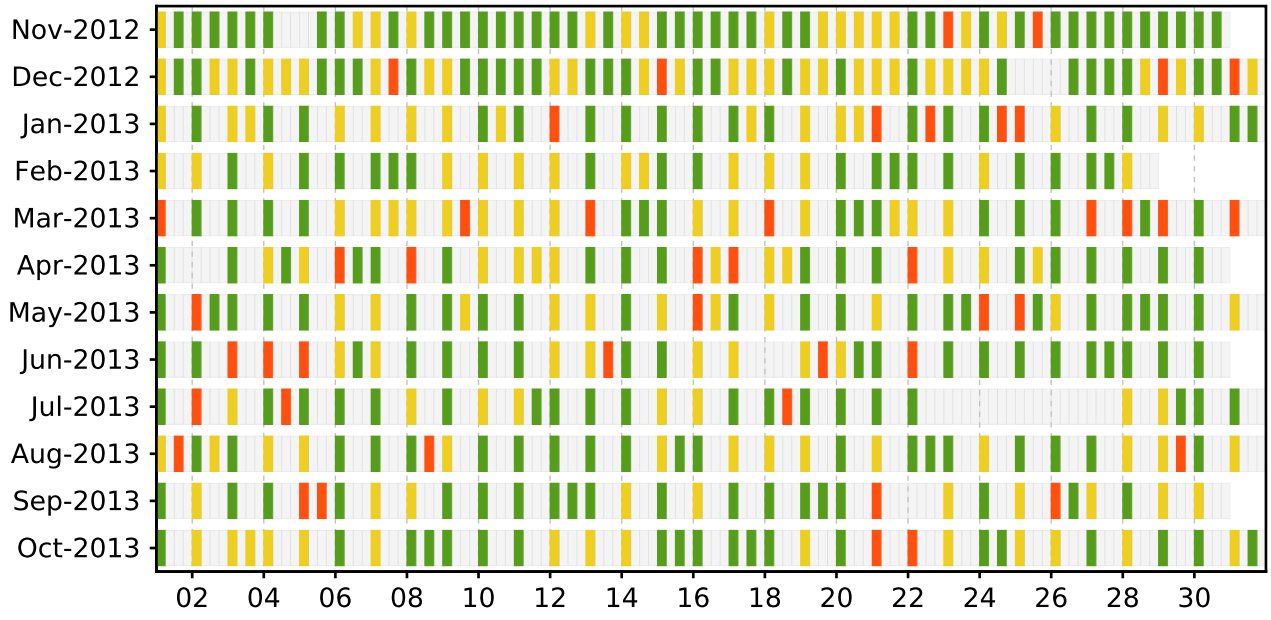
3.3.1 Stream: RS92 (Product: RS92-GDP-002)

Month	Count	GRUAN Data Quality			Issues				
		Approved	Checked	Rejected	Meta-data	Process.	Press	Temp	RH
Nov 12	58	41	15	2			1		15
Dec 12	59	27	28	4			7		25
Jan 13	38	18	15	5			4		15
Feb 13	32	18	14				1		15
Mar 13	37	15	14	8			2		15
Apr 13	35	18	12	5			2		12
May 13	37	22	11	4			2		9
Jun 13	34	20	8	6			5		8
Jul 13	30	19	8	3			3		9
Aug 13	37	20	14	3			3	1	15
Sep 13	33	19	10	4			3		10
Oct 13	37	20	15	2			1		14
	467	**257**	**164**	**46**			**34**	**1**	**162**

Data quality statistic of stream RS92



Schedule data quality of stream RS92



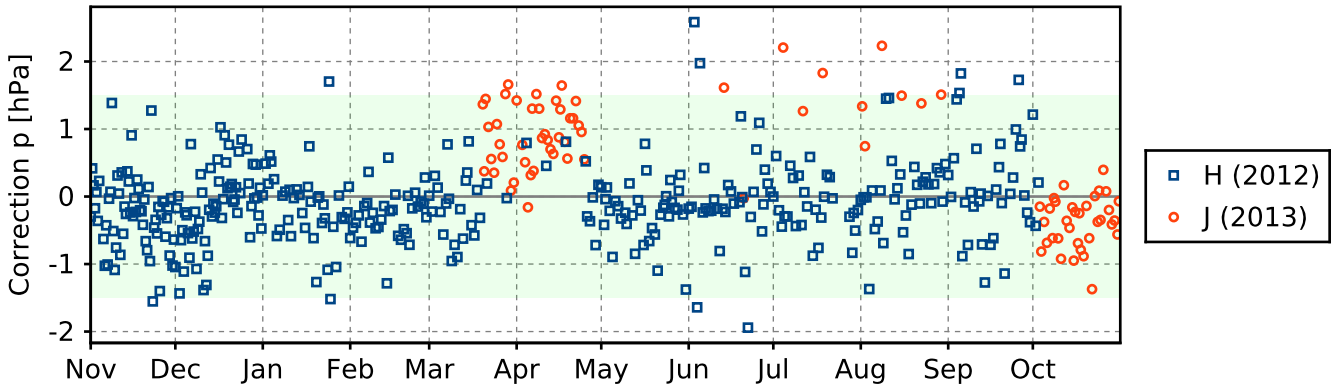
3.4 Instrument combinations of CAB-RS-01

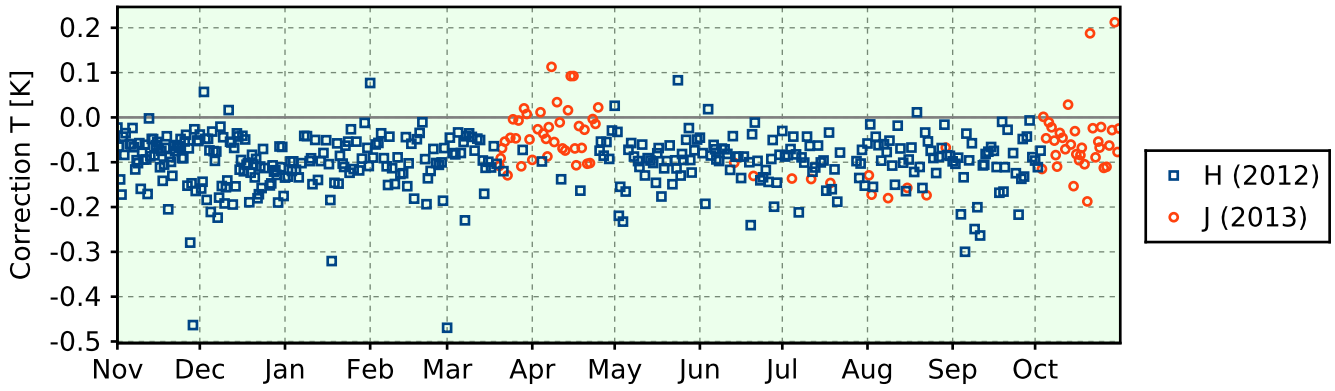
Count	Instrument combination
467	RS92

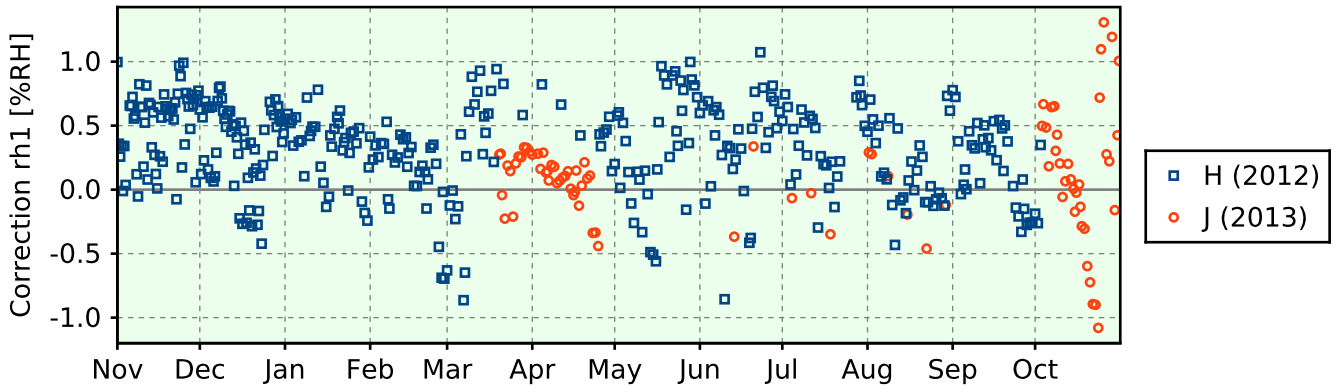
3.5 Instrument ground check

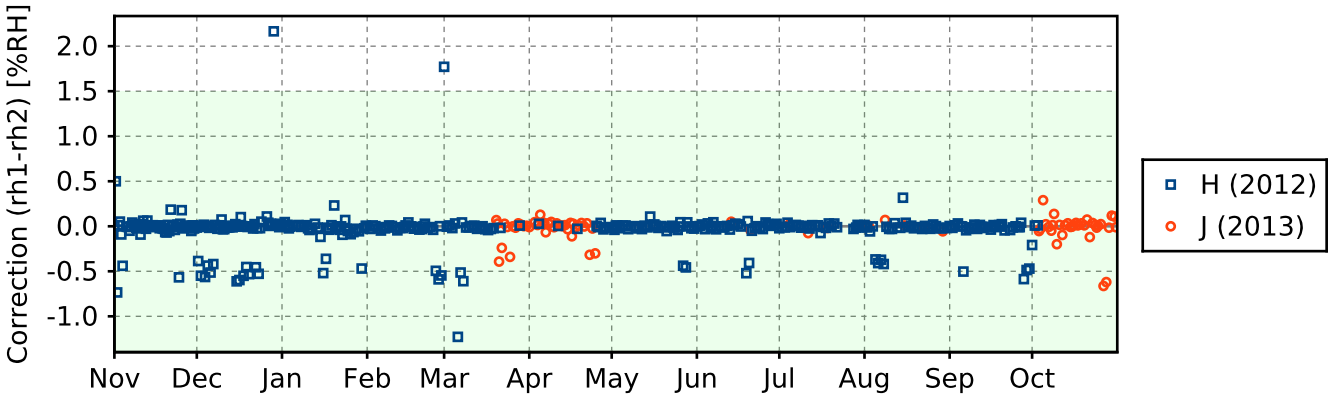
3.5.1 Stream: RS92

3.5.1.1 GroundCheck: GC25









3.5.1.2 GroundCheck: SHC