



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

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**8th GRUAN Implementation-
Coordination Meeting (ICM-8)**

Session 7

Boulder, USA
25 April – 29 April 2016

GRUAN Station Report for Potenza

(Submitted by Fabio Madonna)

Summary and Purpose of Document

Report from the GRUAN station Potenza for the period March 2016 to March 2016.



GRUAN Station Report for Potenza (POT)

Reporting for the period Mar 2015 to Mar 2016

Date: 31-Mar-2016

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Overview

Currently, only RS data are provided to the GRUAN archive. Aerosol, water vapor, clouds and radiation from lidars, GPS, ceilometers, and radiometers could be included in the future data streams. In particular GPS data stream from the two antennas operating at the site (Trimble and Novatel) could be immediately submitted to any GRUAN processing server.

Change and change management

SHC is routinely operated in. One launch each 15 days is performed using the manual launcher (including the use of the SHC in the launch procedure), the other weekly launch will be performed with the autolauncher.

The update of the manual launch will start by June 2016.

20 RS41 launches are expected.

A new calibration chamber "Kambic KK-105 will be operative since mid of 2016.

A new calibration lamp for the Raman lidar will be tested in October 2016.

A reference hygrometer will be installed in the auto-launcher since mid of 2016.

Resourcing

Potenza is continuing to support GRUAN activities using not dedicated funds. Negotiating with the Met Service the possibility to transfer a RAOB Italian station to Potenza is continuing though the formal status of the Met Service has changed creating big delays.

Site assessment and certification

POTENZA site has been certified on 29 April 2015.

GRUAN related research

Assessment of the traceability chain for the aerosol lidar products.

Identification of metadata standards for the discovery and measurements metadata from existing ground based network for the GAIA-CLIM project.

WG-GRUAN interface

N/A

Items for ICM-8 plenary discussions

Management of change from RS92 to RS41.

Establishment of other GRUAN products (GPS, Raman lidar, MWR).

Use of collocation and redundancy studies to serve GRUAN community.

Future plans

Dual launches involving the autosonde and the manual systems using RS41 and RS92 will be performed.

Specific experiment to assess the autosonde performance are planned.

Negotiation with the Met Service about the possibility to transfer a RAOB Italian station to Potenza will continue and likely closed within 2016.

Water vapor Raman lidar measurements are continuing and since October 2016 will be calibrated using a scanning flash lamp.



GRUAN Station Report for Potenza (POT), 2015

Reported time range is Nov 2014 to Feb 2016

Created by the Lead Centre

Version from 2016-04-18

1 General GRUAN station information

Info	Value
Station name	Potenza
Unique GRUAN ID	POT
Geographical position	40.6000 °N, 15.7200 °E, 720.0 m
Operated by	IMAA Istituto di Metodologie per l'Analisi Ambientale, part of: CNR Consiglio Nazionale delle Ricerche
Main contact	Madonna, Fabio
WMO no./name	-
Operators	current 3, change +0 / -0
Sounding Site	1
GNSS	1

1.1 General information about GRUAN measurement systems

System	Type	Setups	Measurements	As scheduled
POT-GN-01	GNSS	0	0	not scheduled
POT-RS-01	Sounding Site	2	54	77.14 %

1.2 General comments from Lead Centre

No comments available from Lead Centre.

2 System: GNSS Site TITO (POT-GN-01)

Info	Value
System name	GNSS Site TITO
Unique GRUAN ID	POT-GN-01
System type	GNSS (GN - GNSS)
Geographical position	40.6013 °N, 15.7237 °E, 818.2 m
Operated by	IMAA Istituto di Metodologie per l'Analisi Ambientale, part of: CNR Consiglio Nazionale delle Ricerche
Instrument contact	Pappalardo, Gelsomina
Started at	-
Defined setups	-
Possible streams	-

2.1 Lead Centre comments

2.1.1 Dataflow

No GNSS dataflow to GRUAN LC as yet.

3 System: Radiosonde Launch Site (POT-RS-01)

Info	Value
System name	Radiosonde Launch Site
Unique GRUAN ID	POT-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	40.6010 °N, 15.7237 °E, 760.0 m
Operated by	IMAA Istituto di Metodologie per l'Analisi Ambientale, part of: CNR Consiglio Nazionale delle Ricerche
Instrument contact	Madonna, Fabio
Started at	-
Defined setups	2 (OZONE, ROUTINE)
Possible streams	ECC, RS92

3.1 Lead Centre comments

3.1.1 Dataflow

Sonde dataflow to GRUAN LC is operational since February 2011.

3.1.2 Data quality

There is a number of data processing issues (corrupt files or unknown issues).

GC25 ground check corrections are within expected limits.

The use of a manufacturer independent ground check is highly recommended.

3.2 GRUAN data products

Product	Version	Soundings received	Available at LC	Distributed by NCDC
RS92		54	54	
RS92-RAW	001		54	
RS92-GDP	002		42	38

3.2.1 Stream: RS92

RS92		54	54	
RS92-RAW	001		54	
RS92-GDP	002		42	38

3.3 Data quality of current GRUAN data products

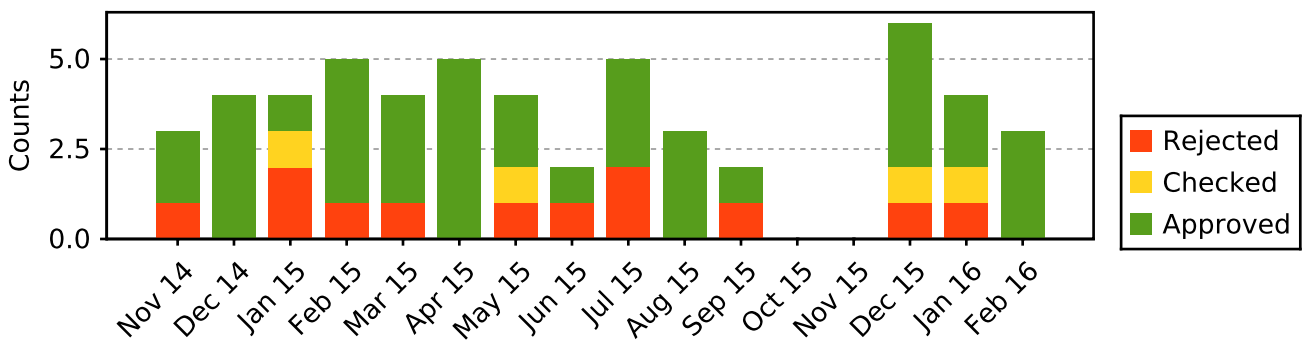
Month	Count	GRUAN Data Quality			Issues				
		Approved	Checked	Rejected	Meta-data	Process.	Press	Temp	RH
Nov 14	3	2		1			1		
Dec 14	4	4							
Jan 15	4	1	1	2					1
Feb 15	5	4		1					
Mar 15	4	3		1					

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

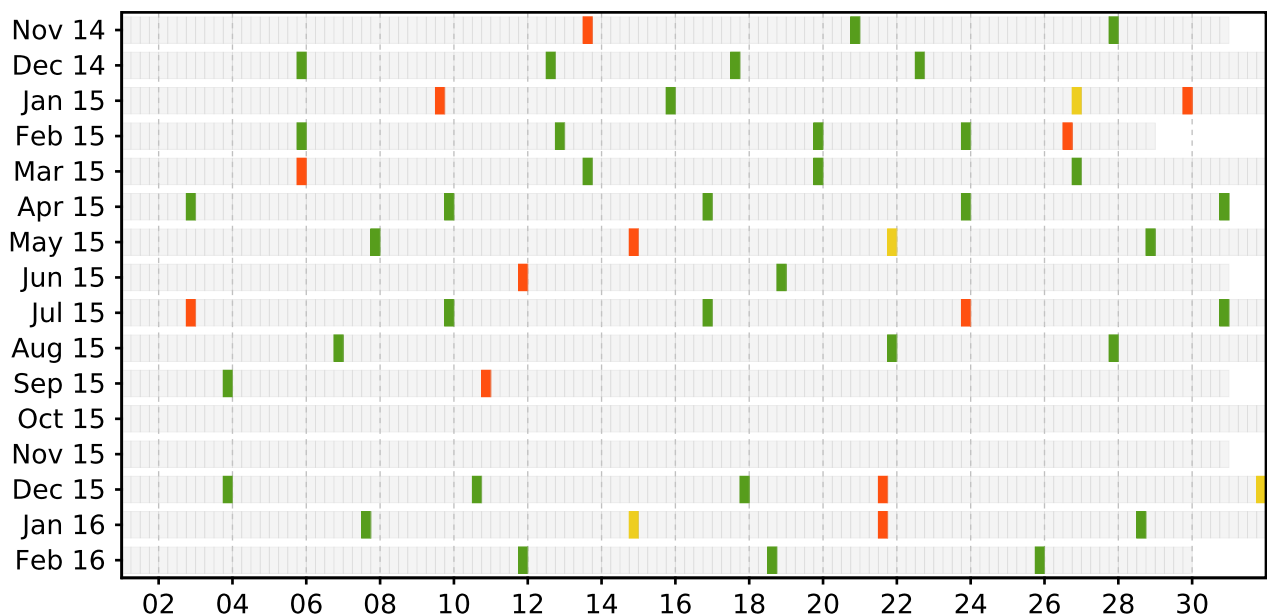
Nov 14	3	2		1			1		
Dec 14	4	4							
Jan 15	4	1	1	2					1
Feb 15	5	4		1					
Mar 15	4	3		1					

Month	Count	GRUAN Data Quality			Issues				
		Approved	Checked	Rejected	Meta-data	Process.	Press	Temp	RH
Apr 15	5	5							
May 15	4	2	1	1					1
Jun 15	2	1		1			1		1
Jul 15	5	3		2			1		
Aug 15	3	3							
Sep 15	2	1		1					
Oct 15									
Nov 15									
Dec 15	6	4	1	1					1
Jan 16	4	2	1	1			1		1
Feb 16	3	3							
	54	38	4	12			4		5

Data quality statistic of stream RS92



Schedule data quality of stream RS92



3.4 Instrument combinations of POT-RS-01

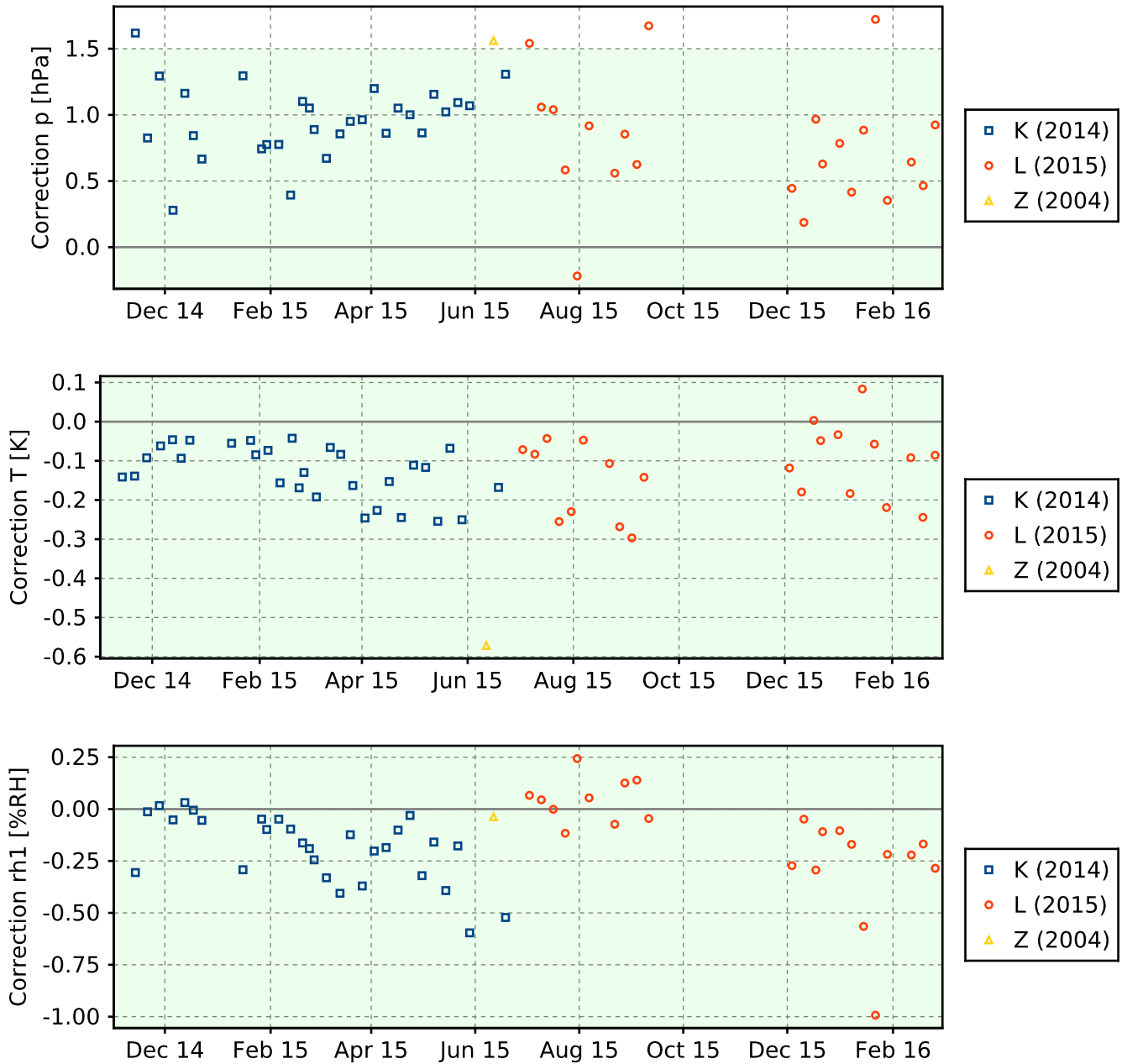
Count Instrument combination

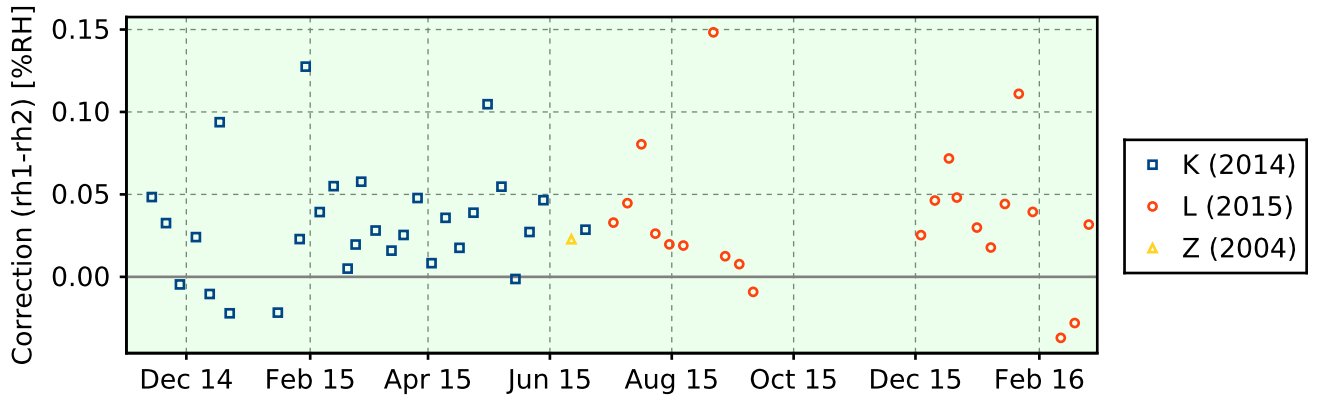
Count	Instrument combination
54	RS92

3.5 Instrument ground check

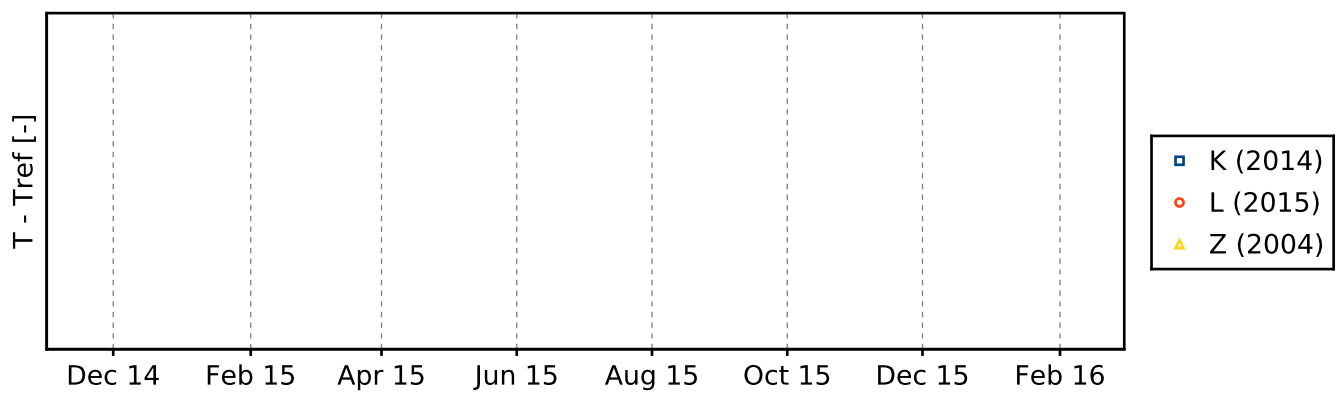
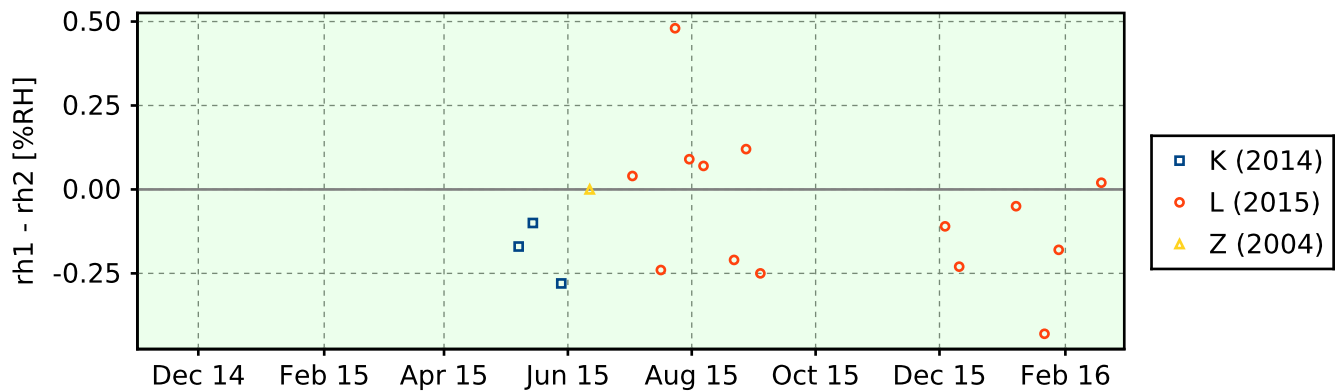
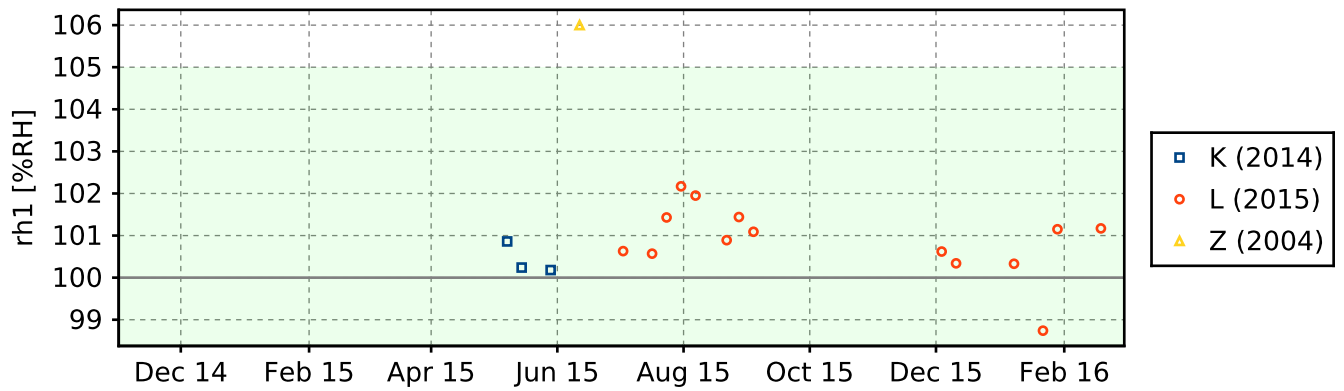
3.5.1 Stream: RS92

3.5.1.1 GroundCheck: GC25





3.5.1.2 GroundCheck: SHC



3.6 Measurement events

3.6.1 Stream: RS92

