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

15th GRUAN Implementation-Coordination Meeting (ICM-15)
Bern
11 March - 15 March 2024

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Session 5

GRUAN Site Report for Neumayer

(Submitted by Lead Centre)

Summary and Purpose of this Document

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

GRUAN Site Report for Neumayer (GVN), 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	Neumayer
Unique GRUAN ID	GVN
Geographical position	-70.6500 °S, -8.2500 °W, 43.0 m
Operated by	AWI | Alfred-Wegener-Institut für Polarforschung, part of: HELMHOLTZ | Helmholtz-Gemeinschaft
Main contact	Schmithüsen, Holger
WMO no./name	89002 NEUMAYER
Operators	currently 5, changes +3 / -1
Sounding Site	1

1.1 General information about GRUAN measurement systems

System	Name	Type	Setups	Measurements
GVN-RS-01	Neumayer Radiosonde Launch Site	Sounding Site	3	391

1.2 General comments from Lead Centre

No comments from Lead Centre.

2 System: Neumayer Radiosonde Launch Site (GVN-RS-01)

Object	Value
System name	Neumayer Radiosonde Launch Site
Unique GRUAN ID	GVN-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	-70.6500 °S, -8.2500 °W, 43.0 m
Operated by	AWI | Alfred-Wegener-Institut für Polarforschung, part of: HELMHOLTZ | Helmholtz-Gemeinschaft
Instrument contact	Schmithüsen, Holger
Started at	1982-02-01
Defined setups	3 (ROUTINE, OZONE, DUAL)
Possible streams	ECC, RS41, RS92

2.1 Lead Centre comments

2.1.1 Dataflow

Sonde dataflow to the GRUAN LC is operational since March 2020.

Currently, the dataflow includes streams of the Vaisala RS41-SGP and ECC Ozone sonde. All launches are promptly submitted using the RsLaunchClient.

2.1.2 General

Recommended burst altitude of 10 hPa is reached on a regular basis.

2.2 GRUAN data products

Product	Version	Soundings received	Available at LC	Distributed by NCEI

2.2.1 Stream: ECC

ECC		66	66	

2.2.2 Stream: RS41

RS41		391	391	
RS41-RAW	001		391	
RS41-EDT	001		391	
RS41-GDP	001		373	

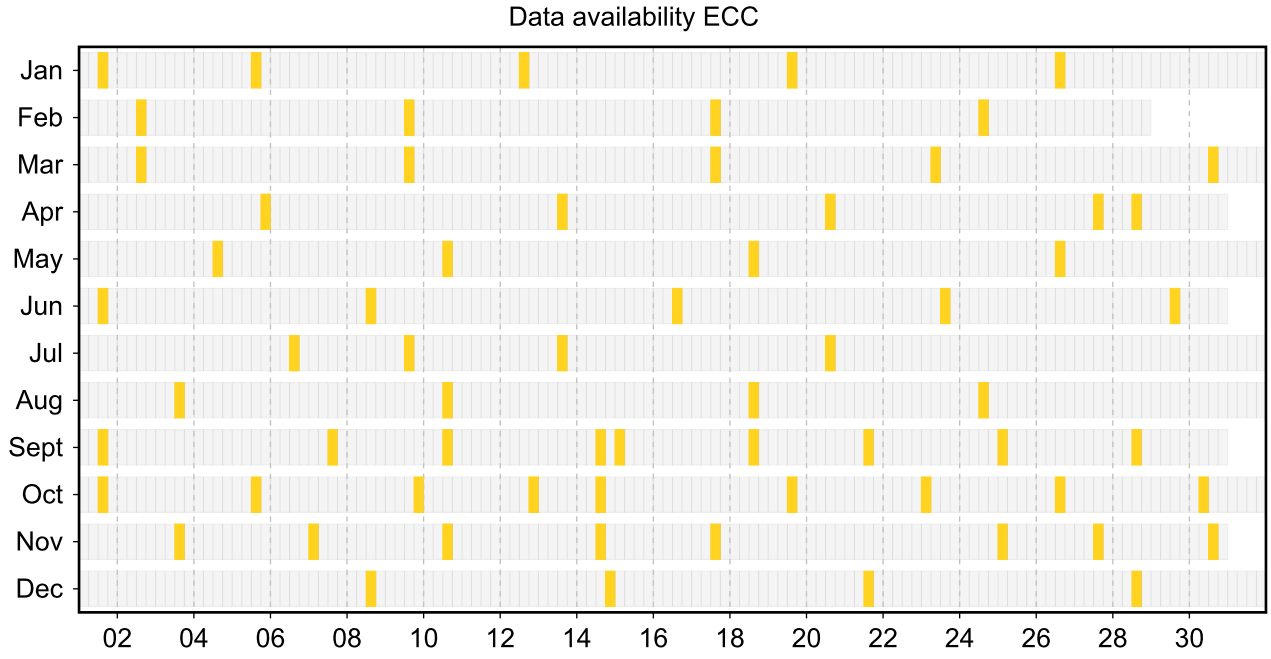
2.3 Availability of data products

Available (green): All steps of data processing have been successfully completed. The data product file is available at LC (e.g. files that didn't pass QA/QC or uncertified GRUAN data products) and/or at NCEI (a certified GRUAN data product file that did pass QA/QC).

Unprocessed (yellow): The manufacturer-produced file with raw measurement data has been successfully converted into a GRUAN-standardized raw data format (NetCDF). The GRUAN data processing has not been performed or was aborted. Reasons for this may be a still missing GRUAN data processor or a processing-software error.

Original (red): The original, manufacturer-produced, raw data file is available (e.g. MWX data file) but was not converted into a GRUAN-standardized raw data format (NetCDF). Reasons for this may be missing data conversion software, a software error, or a corrupt data file.

2.3.1 Stream: ECC



2.3.2 Stream: RS41

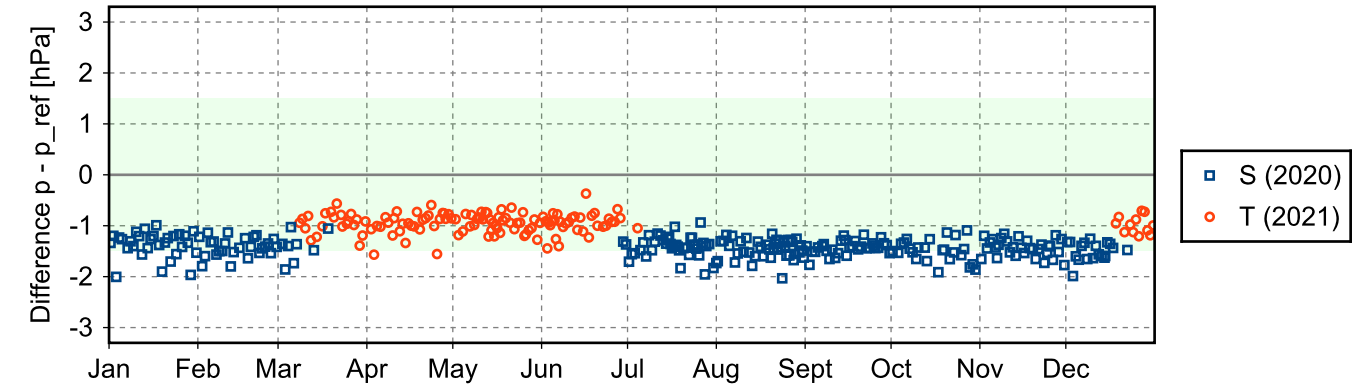
2.4 Instrument combinations of GVN-RS-01

Count	Instrument combination
66	ECC, RS41
325	RS41

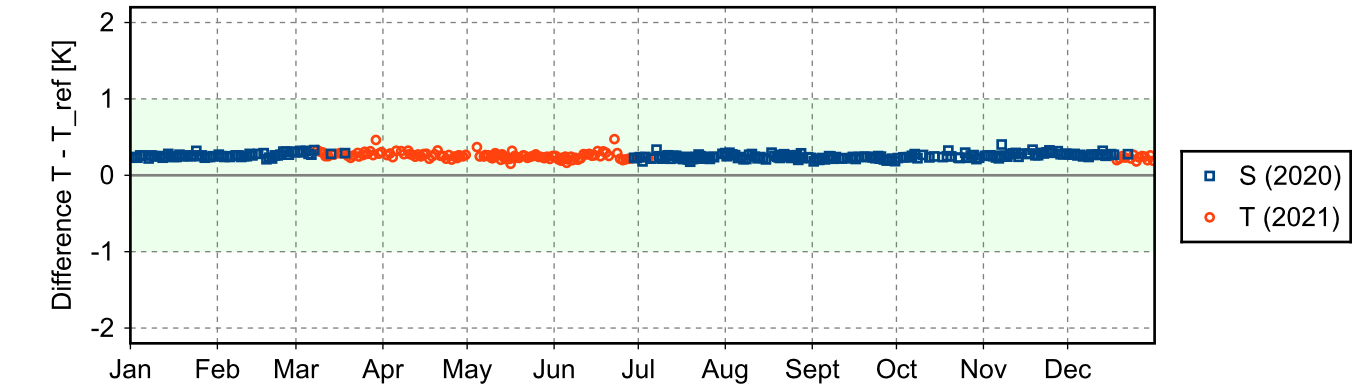
2.5 Instrument ground check

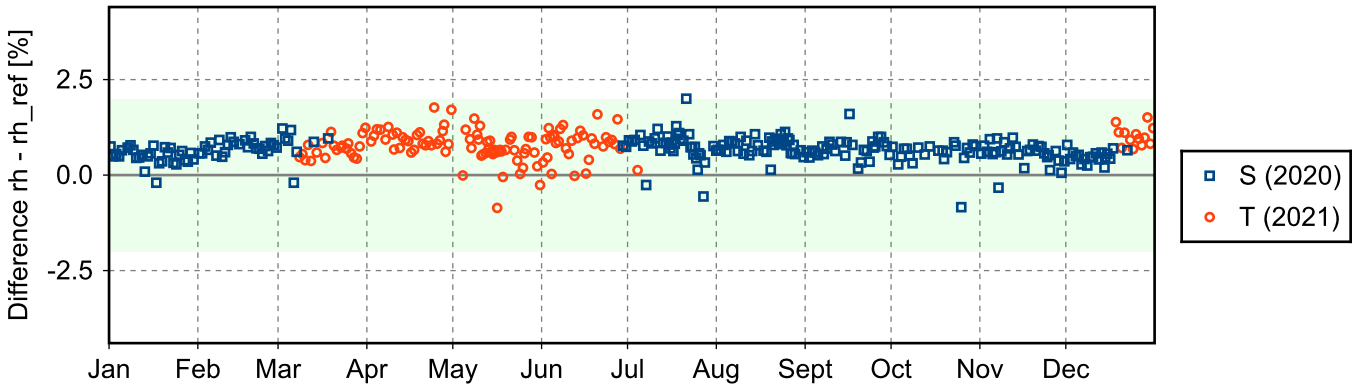
2.5.1 Stream: RS41

(1) GroundCheck: GC-RI41



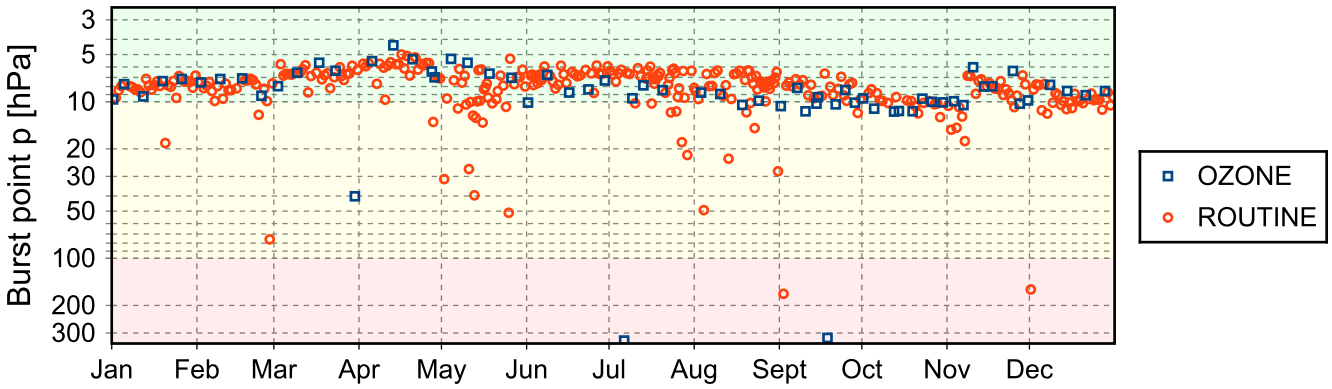
(2) GroundCheck: GC-SHC





(3) GroundCheck: GC-SHELTER

2.6 Measurement events



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Main contact	Schmithüsen, Holger
WMO no./name	89002 NEUMAYER
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1.1 General information about GRUAN measurement systems

System	Name	Type	Setups	Measurements
GVN-RS-01	Neumayer Radiosonde Launch Site	Sounding Site	3	387

1.2 General comments from Lead Centre

1.2.1 Request

The cause of jump in temperature difference of ground check (SHC) should be communicated to the Lead Centre.

2 System: Neumayer Radiosonde Launch Site (GVN-RS-01)

Object	Value
System name	Neumayer Radiosonde Launch Site
Unique GRUAN ID	GVN-RS-01
System type	Sounding Site (RS - Radiosonde)
Geographical position	-70.6500 °S, -8.2500 °W, 43.0 m
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Instrument contact	Schmithüsen, Holger
Started at	1982-02-01
Defined setups	3 (ROUTINE, OZONE, DUAL)
Possible streams	ECC, RS41, RS92

2.1 Lead Centre comments

2.1.1 Dataflow

Sonde dataflow to the GRUAN LC is operational since March 2020.

Currently, the dataflow includes streams of the Vaisala RS41-SGP and ECC Ozone sonde. All launches are promptly submitted using the RsLaunchClient.

2.1.2 Data quality

It is appreciated that the GC-SHC for temperature is carried out. However, a significant jump in the ground control (SHC) temperature differences can be observed (mid-February). The reason for this should be clarified (sensor recalibration or sensor replacement?) and reported to the Lead Centre.

2.1.3 General

Recommended burst altitude of 10 hPa is reached on a regular basis.

2.2 GRUAN data products

Product	Version	Soundings received	Available at LC	Distributed by NCEI

2.2.1 Stream: ECC

ECC		70	70	

2.2.2 Stream: RS41

RS41		387	387	
RS41-RAW	001		387	
RS41-EDT	001		386	
RS41-GDP	001		371	

2.3 Availability of data products

Available (green): All steps of data processing have been successfully completed. The data product file is available at LC (e.g. files that didn't pass QA/QC or uncertified GRUAN data products) and/or at NCEI (a certified GRUAN data product file that did pass QA/QC).

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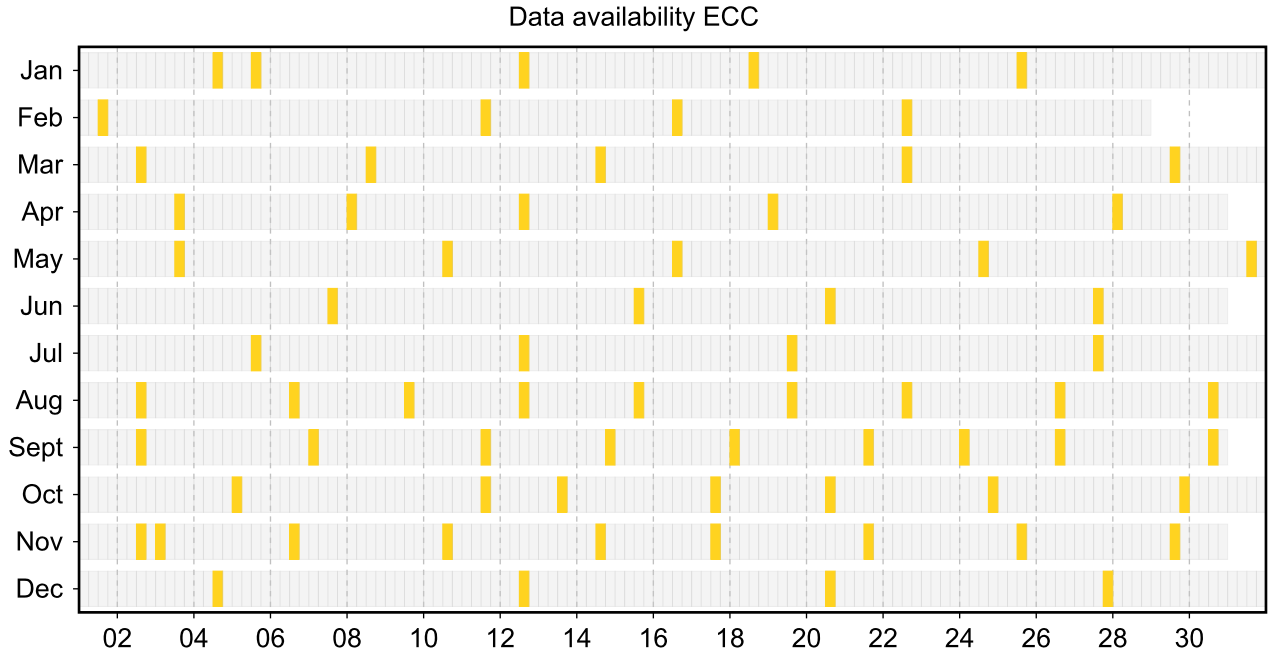
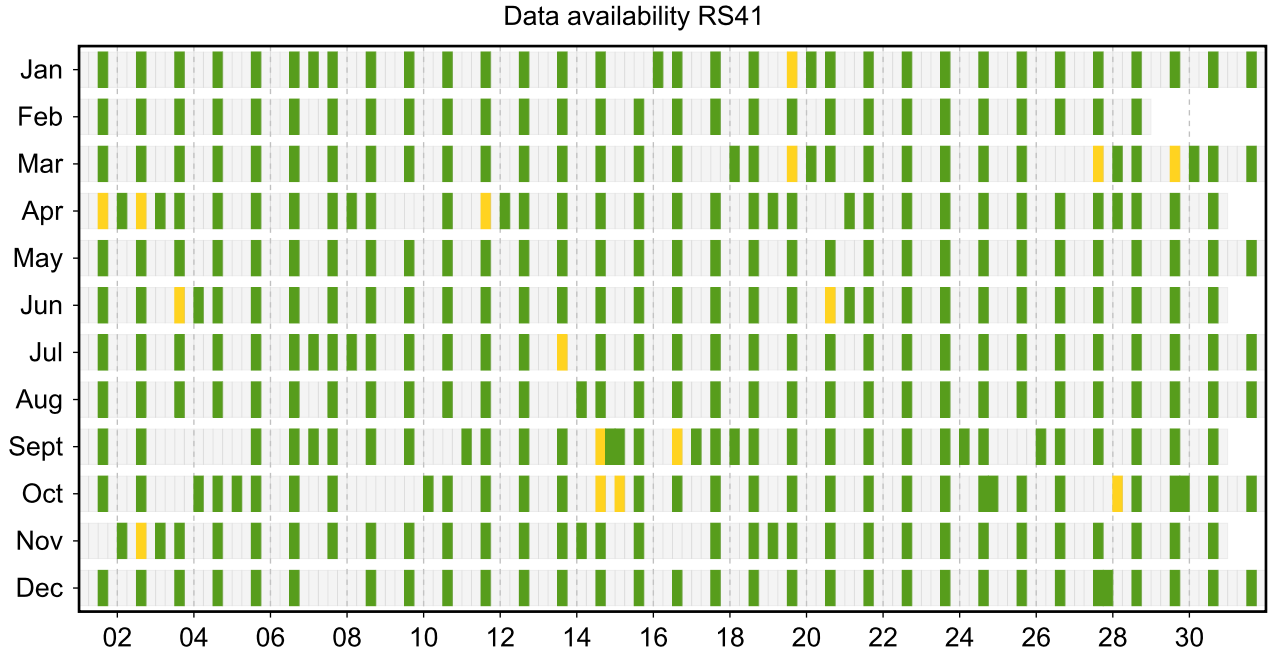
2.3.1 Stream: ECC



2.3.2 Stream: RS41



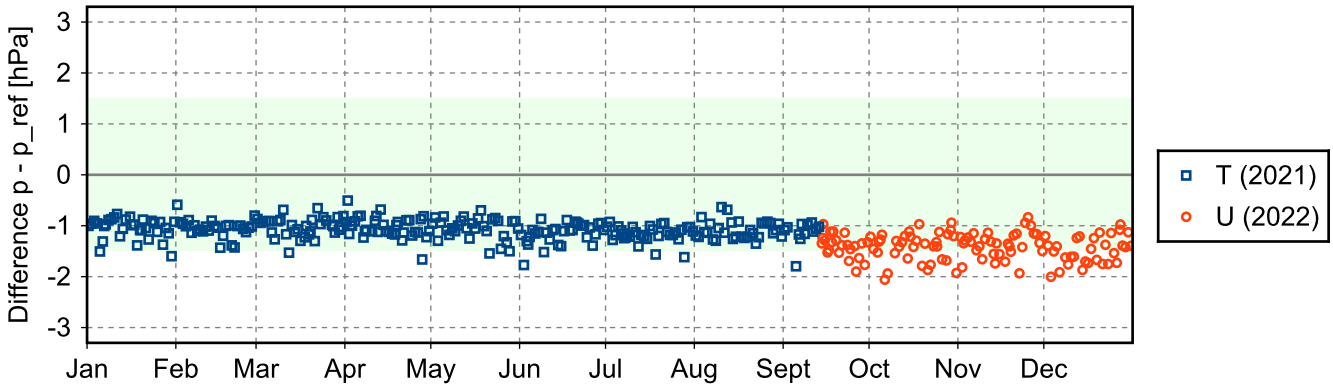
2.4 Instrument combinations of GVN-RS-01

Count	Instrument combination
70	ECC, RS41
317	RS41

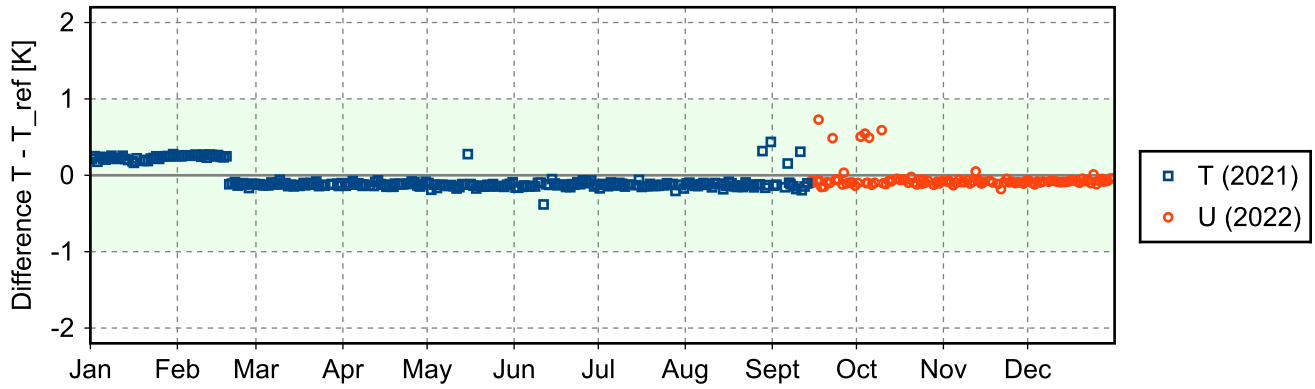
2.5 Instrument ground check

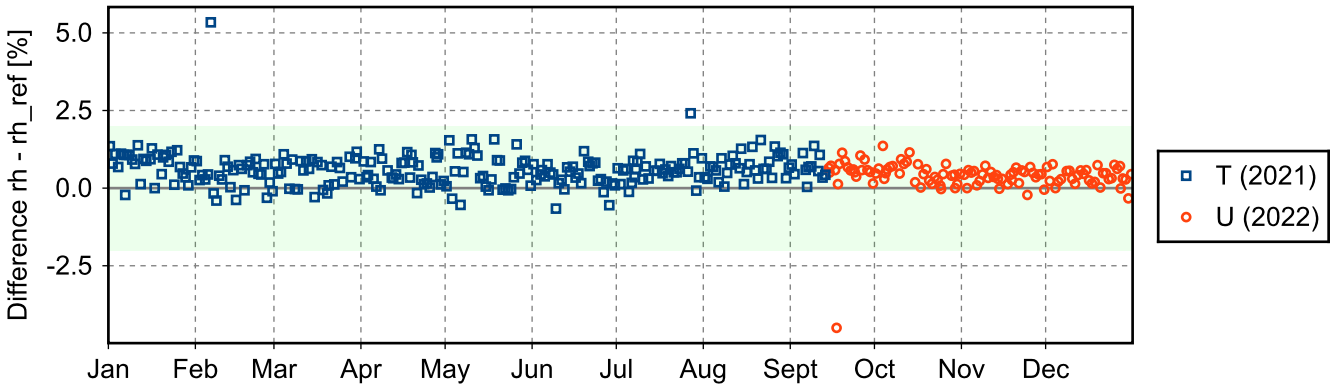
2.5.1 Stream: RS41

(1) GroundCheck: GC-RI41



(2) GroundCheck: GC-SHC





(3) GroundCheck: GC-SHELTER

2.6 Measurement events