

## 1. Overview

Report Production:	21-Jan-2023
Processor Used:	CryoSat Ocean Processor
Data Used:	Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data

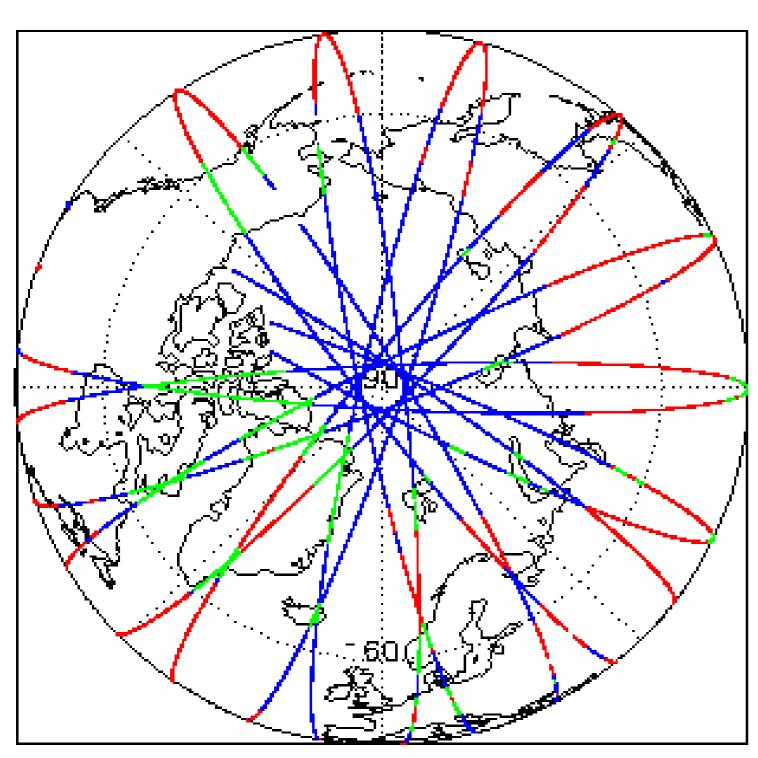
# We would love to hear from you! Please let us know your feedback about these daily

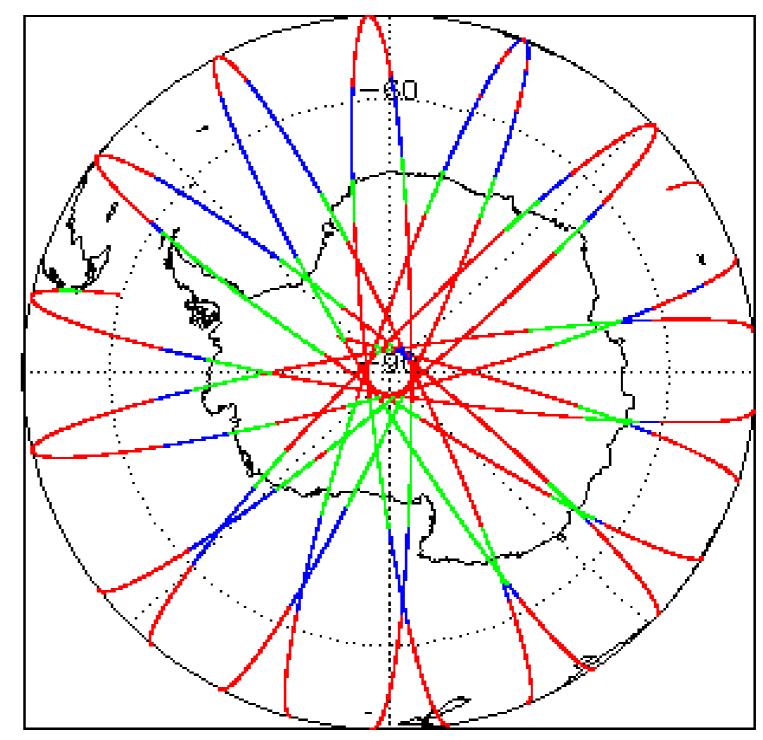
quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2\_qc\_team@telespazio.com

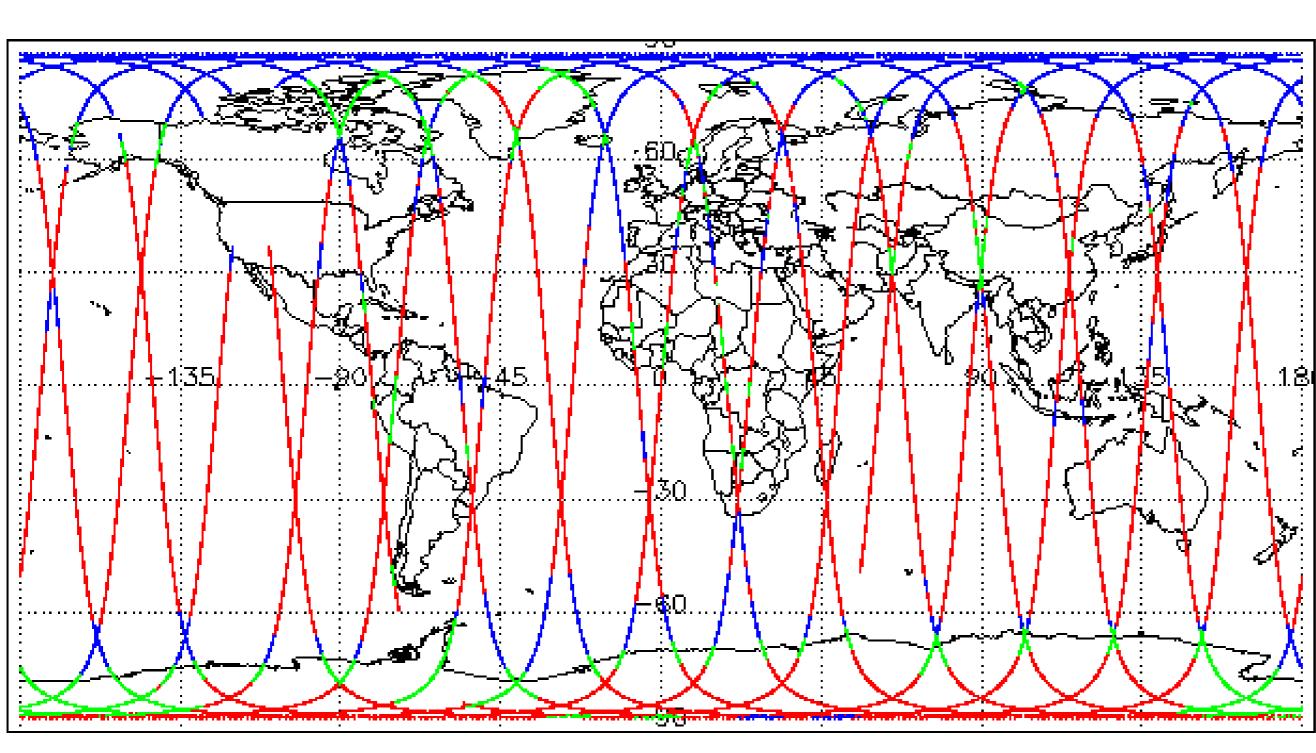
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

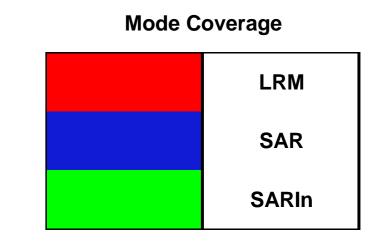
Mission / Instrument News		
21-Dec-2022	None	
22-Dec-2022	None	
23-Dec-2022	Nothing planned	

# 2. Global Coverage









# 3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below.

SIRAL instrument(s) in use: SIRAL - A

# 4. GOP Level 1B Data Quality Check

## **4.1 L1B Product Format Check**

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).

#### **4.2 L1B Product Header Analysis**

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.

L1B Processing Quality HR: The I1b\_proc\_flag\_hr flag is currently set all L1B GOPR and GOPN products because the I1b\_processing\_quality\_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

#### 4.3 L1B Auxilary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors:

# 4.4 L1B Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

0

0

#### 4.5 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag for each measurement record. The bit value of this flag indicates any problems when set.

Attitude Correction Missing: This flag is currently set in error for GOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

**Number of products with errors:** 

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#### 4.6 L1B Waveform Group Data Check

CryoSat L1B data includes a waveform data flag for each measurement record. The bit value of this flag indicates any problems when set.

Loss of Echo Flag: This flag is currently set for some products over land, but this is to be expected.

**Number of products with errors:** 

22

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20221222T020523_20221222T020618_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20221222T062917_20221222T063705_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20221222T132008_20221222T132212_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20221222T162426_20221222T162908_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20221222T220152_20221222T222422_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T051635_20221222T051719_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T065520_20221222T065733_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T083427_20221222T083636_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T085656_20221222T085720_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T100932_20221222T101426_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T164018_20221222T164319_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T195919_20221222T200134_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20221222T223524_20221222T223724_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T032231_20221222T033200_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T054848_20221222T055546_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T083843_20221222T084038_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T105047_20221222T105250_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T144928_20221222T145211_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T154805_20221222T155059_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T191744_20221222T192313_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T213221_20221222T213559_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20221222T214001_20221222T214523_C001	Loss of Echo	The tracking echo is missing for one or more records

## 5. GOP Level 2 Data Quality Check

## 5.1 L2 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).

Number of products with errors:

# 5.2 L2 Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors: 0

## **5.3 L2 Auxiliary Data File Usage Check**

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors: 0

## 5.4 L2 Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

Currently, there are some common auxiliary correction errors raised in the Level 2 products that are expected, due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues that may arise from this test.

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20221222T020239_20221222T020334_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20221222T131218_20221222T131242_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T010516_20221222T010638_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T014309_20221222T014431_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T020353_20221222T020403_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T023520_20221222T023646_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T024210_20221222T024520_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T041459_20221222T041614_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T042110_20221222T042433_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T055546_20221222T055822_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T060015_20221222T060641_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T065057_20221222T065217_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T065520_20221222T065733_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T073106_20221222T073714_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T074428_20221222T074605_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T083018_20221222T083138_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T092333_20221222T092521_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T100932_20221222T101426_C001	Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T123407_20221222T123618_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean
CS_OFFL_SIR_GOPN_2_20221222T141210_20221222T141526_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T142047_20221222T142206_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T155059_20221222T155419_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T155943_20221222T160107_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T164018_20221222T164319_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T173758_20221222T173915_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T182120_20221222T182219_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T191535_20221222T191744_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T195919_20221222T200134_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T204553_20221222T204739_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T213559_20221222T214000_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20221222T223524_20221222T223724_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records

CS_OFFL_SIR_GOPR_2_20221222T000710_20221222T001605_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T014636_20221222T015300_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T015300_20221222T015544_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T015751_20221222T015958_C001	IIVIean Dynamic Tobodrabny (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T020334_20221222T020353_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T020403_20221222T020517_C001	liviean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T032231_20221222T033200_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the GPD Wet Tropospheric correction, the MSS height (solution 1) and tidal corrections for one or more records
CS_OFFL_SIR_GOPR_2_20221222T033200_20221222T033329_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T050419_20221222T051058_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T051058_20221222T051635_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T064347_20221222T064946_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T064946_20221222T065056_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T071320_20221222T071533_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T082336_20221222T082520_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T082555_20221222T082735_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T082735_20221222T083017_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T083843_20221222T084038_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T100219_20221222T100317_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T100317_20221222T100931_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T114445_20221222T114955_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T131243_20221222T131443_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T131817_20221222T132007_C001	liviean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T132345_20221222T133150_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T145528_20221222T145717_C001	IIVIean Dynamic Tobodrabny (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T150224_20221222T151104_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T164319_20221222T165014_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T182219_20221222T182802_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T200135_20221222T200242_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T200242_20221222T200822_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T213221_20221222T213559_C001		There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T214001_20221222T214523_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20221222T231824_20221222T232826_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

# 5.5 L2 Measurement Confidence Data Check

# 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20 Hz)

CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record. The bit value of this flag indicates any problems when set.

Currently, there are several common flags raised in the Level 2 products, which are summarised below. The table provides the full list of products flagged.

- > Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags: These flags are currently set for some records over ocean.
- > OCOG Altimeter Range and Backscatter Quality Flags: These flags are currently set for some records over continental ice.

Number of products with errors:

80

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20221222T003252_20221222T005357_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T005655_20221222T010140_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T011009_20221222T014309_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T015545_20221222T015751_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T024845_20221222T031014_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T031300_20221222T032231_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T033435_20221222T033806_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T035417_20221222T041126_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T041614_20221222T042109_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T042744_20221222T050026_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T052304_20221222T052535_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T052549_20221222T054848_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T060718_20221222T062234_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T062308_20221222T062436_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T062917_20221222T063705_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T063724_20221222T063728_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T065217_20221222T065520_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T065743_20221222T071319_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T071545_20221222T073026_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T074010_20221222T074428_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T074631_20221222T080106_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T080245_20221222T081712_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

Se Off 68 0019 / 2019/27/10/10 2019/27/10/10 2019   Deat Allered Republish Cody   The Bellowing Cody   The Bellowing Cody   Cody	CS_OFFL_SIR_GOPM_2_20221222T084039_20221222T085015_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
Description of the communication of the communica	CS_OFFL_SIR_GOPM_2_20221222T085720_20221222T091150_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
### CODO All Heads Rainer Stage and Educational Codors (1995)  ### CODO All Heads Rainer Stag	CS_OFFL_SIR_GOPM_2_20221222T091507_20221222T092333_C001		
Del Del L. (1964) 2. JECC 1922 I 1922	CS_OFFL_SIR_GOPM_2_20221222T092606_20221222T094834_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Col. CPFL, S.R. (COPFL, 2-2222-2227116697, 202212227119171, COD1   COD2, After received and processing and pr	CS_OFFL_SIR_GOPM_2_20221222T102429_20221222T105046_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
September   Capits	CS_OFFL_SIR_GOPM_2_20221222T105411_20221222T105606_C001	_	
CS_OFFL_SIR_ODFM_2_20221227110012_20221227110013_C001  CS_OFFL_SIR_ODFM_2_20221227110012_2022122711003_C001  CS_OFFL_SIR_ODFM_2_20221227110012_2022122711003_C001  CS_OFFL_SIR_ODFM_2_20221227110012_2022122711003_C001  CS_OFFL_SIR_ODFM_2_20221227110012_2022122711003_C001  CS_OFFL_SIR_ODFM_2_20221227110012_20221227110012_20201227110012_C001  CS_OFFL_SIR_ODFM_2_20221227110012_20221227110012_C001  CS_OFFL_SIR_ODFM_2_20221227110012_C001  CS_OFFL_SI	CS_OFFL_SIR_GOPM_2_20221222T105657_20221222T110147_C001		
and Sadescate O-sally, COCO Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of allineate Flange and Dackscate O-sally Flags have been self and coco of allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been self and coco of Allineate Flange SSIA, SWI and Dackscate O-sally Flags have been sel	CS_OFFL_SIR_GOPM_2_20221222T110520_20221222T110715_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_CPF_SIR_GOPM_2_2022122114339_20221221142017_C001	CS_OFFL_SIR_GOPM_2_20221222T110812_20221222T112933_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  So one or more records  CS_OFFL_SIR_GOPM_2_20221222T129518_20221222T129515_0001  CS_OFFL_SIR_GOPM_2_20221222T129518_20221222T139515_0001  CS_OFFL_SIR_GOPM_2_20221222T129518_20221222T139515_0001  CS_OFFL_SIR_GOPM_2_20221222T139518_20221222T139515_0001  CS_OFFL_SIR_GOPM_2_20221222T139508_20221222T139515_0001  CS_OFFL_SIR_GOPM_2_20221222T139508_2	CS_OFFL_SIR_GOPM_2_20221222T120322_20221222T122846_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscrater Quality  CS_OFFL_SIR_GORM_2_20221222T12468_20221222T131219_0001  Ocean Affirmeter Range, SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality Flags and the COOS Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG Affirmeter Range, SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range SSHA, SWH and Backscrater Quality, OCOG SAH Affirmeter Range, SSHA, SWH and Backscrater Quality Flags have been self or one or or one records  CS_OFFL_SIR_OOPM_2_20221222T145882_20221222T158913_001  CG_OFFL_SIR_OOPM_2_20221222T15841_2022122T15893_001  CG_O	CS_OFFL_SIR_GOPM_2_20221222T123339_20221222T123407_C001		
and Backscatter Quality, COG Altimoter Range and Backscatter Quality Flags have been set for one or more records  CS OFFL SIR GOPM 2 20221222T132008 2022122ZT132212 C001  CS OFFL SIR GOPM 2 2022122ZT132008 202212ZZT132212 C001  CS OFFL SIR GOPM 2 202212ZZT132008 202212ZZT140242 C001  CS OFFL SIR GOPM 2 202212ZZT132008 202212ZZT140247 C001  CS OFFL SIR GOPM 2 202212ZZT145207 202212ZZT140247 C001  CS OFFL SIR GOPM 2 202212ZZT145207 202212ZZT140247 C001  CS OFFL SIR GOPM 2 202212ZZT145207 202212ZZT142047 C001  CS OFFL SIR GOPM 2 202212ZZT145207 202212ZZT142047 C001  CS OFFL SIR GOPM 2 202212ZZT145207 202212ZZT142047 C001  CS OFFL SIR GOPM 2 202212ZT14210 C00212ZT142044 C001  CS OFFL SIR GOPM 2 202212ZT14210 C00212ZT142044 C001  CS OFFL SIR GOPM 2 202212ZT14210 C00212ZT14300 C001  CS OFFL SIR GOPM 2 202212ZT14410 C0021  CS OFFL SIR GOPM 2 202212ZT155430 C00212ZT15530 C001  CS OFFL SIR GOPM 2 202212ZT15550 C00212ZT15530 C001  CS OFFL SIR GOPM 2 202212ZT15530 C001  CS OFFL SIR GOPM 2 202212ZT1	CS_OFFL_SIR_GOPM_2_20221222T123618_20221222T124215_C001	_	, , ,
and Backscatter Quality, OCOG Allimoter Range and Backscatter Quality Flags have been and face of COGO Allimoter Range and Backscatter Quality Flags have been and face of COGO Allimoter Range and Backscatter Quality Flags and the OCOGO Allimoter Range and Backscatter Quality Flags and the OCOGO Allimoter Range and Backscatter Quality Flags and the OCOGO Allimoter Range and Backscatter Quality Flags and the OCOGO Allimoter Range and Backscatter Quality Flags and the OCOGO Allimoter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T144591_20221222T142622_C0111  CS_OFFL_SIR_GOPM_2_20221222T144512_20221222T142644_C0111  CS_OFFL_SIR_GOPM_2_20221222T144512_20221222T142620_C0111  CS_OFFL_SIR_GOPM_2_20221222T14312_20221222T143520_C0111  CS_OFFL_SIR_GOPM_2_20221222T14312_20221222T143520_C0111  CS_OFFL_SIR_GOPM_2_20221222T14312_2022122T143510_C0111  CS_OFFL_SIR_GOPM_2_20221222T14352_2022122T155104_C0111  CS_OFFL_SIR_GOPM_2_2022122T14553_2022122T15530_C0111  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_2022122T155550_C0111  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OCG_Allimeter Range and Backscatter Quality Fl	CS_OFFL_SIR_GOPM_2_20221222T124438_20221222T131213_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality. OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS OFFL SIR GOPM 2 20221222T14267 20221222T142047 C001  CS OFFL SIR GOPM 2 20221222T14267 20221222T142042 C001  CS OFFL SIR GOPM 2 2022122ZT14267 2022122ZT142022 C001  CS OFFL SIR GOPM 2 2022122ZT14270 2022122ZT142042 C001  CS OFFL SIR GOPM 2 2022122ZT14270 2022122ZT142044 C001  CS OFFL SIR GOPM 2 2022122ZT14270 2022122ZT142044 C001  CS OFFL SIR GOPM 2 2022122ZT14270 202212ZT142044 C001  CS OFFL SIR GOPM 2 202212ZT143012 202212ZT143520 C001  CS OFFL SIR GOPM 2 202212ZT14312 202212ZT143520 C001  CS OFFL SIR GOPM 2 202212ZZT14330 202212ZT14301 C001  CS OFFL SIR GOPM 2 202212ZZT14330 202212ZT15330 C001  CS OFFL SIR GOPM 2 202212ZZT15533 202212ZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT15533 202212ZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT15533 202212ZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT155330 202212ZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT155330 202212ZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT155330 202212ZZT155330 C001  CS OFFL SIR GOPM 2 202212ZZT155	CS_OFFL_SIR_GOPM_2_20221222T132008_20221222T132212_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_GOPM_2_20221222T142451_20221222T142622_CO01  Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T143122_20221222T144301_CO01  CS_OFFL_SIR_GOPM_2_20221222T145832_20221222T150104_CO01  CS_OFFL_SIR_GOPM_2_20221222T15332_CO01  CS_OFFL_SIR_GOPM_2_20221222T15433_20221222T152328_CO01  CS_OFFL_SIR_GOPM_2_20221222T15433_20221222T154805_CO01  CS_OFFL_SIR_GOPM_2_20221222T154805_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_20221222T154805_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_20221222T155530_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_20221222T155530_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_20221222T155530_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_20221222T155530_CO01  CS_OFFL_SIR_GOPM_2_20221222T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2022122T155530_CO01  CS_OFFL_SIR_GOPM_2_2022122T155410_2021122T155530_CO01  CS_OFFL_	CS_OFFL_SIR_GOPM_2_20221222T133502_20221222T140829_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range. SFHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range. SFHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T144112_20221222T143520_C001  CS_OFFL_SIR_GOPM_2_20221222T144112_20221222T144301_C001  CS_OFFL_SIR_GOPM_2_20221222T155332_2022122T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T155413_20221222T15530_C001  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T15530_C001  CS_OFFL_SIR_GOPM_2_20221222T15536_2_2022122T15530_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155330_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155530_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155530_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155530_C001  CS_OFFL_SIR_GOPM_2_2022122T15536_2_2022122T155530_C001  CCGA_Altimeter Range_Collaily, OCOG_Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCGOPM_2_2022122T155419_2022122T155430_C001  CCGA_Altimeter Range_Collaily, OCOG_Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCGOPM_2_20221222T155419_2022122T155430_C001  CCCGA_Altimeter Range_Collaily, OCOG_Altimeter Range	CS_OFFL_SIR_GOPM_2_20221222T141527_20221222T142047_C001		, , ,
S_OFFL_SIR_GOPM_2_20221222T143129_2022122Z1143520_C001  Altimeter Range and Backscatter Quality Set for one or more records and the OCOG Altimeter Range and Backscatter Quality Flags have been at for one or more records  CS_OFFL_SIR_GOPM_2_2022122Z1143129_2022122Z1143520_C001  CS_OFFL_SIR_GOPM_2_2022122Z1144112_202212Z2T144301_C001  CS_OFFL_SIR_GOPM_2_2022122Z1144112_202212Z2T144301_C001  CS_OFFL_SIR_GOPM_2_2022122Z1145832_202212Z2T150104_C001  CS_OFFL_SIR_GOPM_2_202212Z2T151433_202212Z2T150104_C001  CS_OFFL_SIR_GOPM_2_202212Z2T151433_202212Z2T152328_C001  CS_OFFL_SIR_GOPM_2_202212Z2T152614_202212Z2T15238_C001  CS_OFFL_SIR_GOPM_2_202212Z2T152614_202212Z2T15530_C001  CS_OFFL_SIR_GOPM_2_202212Z2T155419_202212ZZT15530_C001  CS_OFFL_SIR_GOPM_2_202212Z2T155419_202212ZZT15530_C001  CS_OFFL_SIR_GOPM_2_202212Z2T155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT155536_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT156449_202212ZZT155943_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CS_OFFL_SIR_GOPM_2_202212ZZT1564447_C001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range Qua	CS_OFFL_SIR_GOPM_2_20221222T142451_20221222T142622_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_GOPM_2_20221222T144112_20221222T144301_C001  CS_OFFL_SIR_GOPM_2_20221222T145832_20221222T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T145832_20221222T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152605_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T155530_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T155630_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T156405_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T1556943_C001  CS_OFFL_SIR_GOPM_2_20221222T156943_C001  CS_OFFL_SIR_GOPM_2_20221222T156943_C001  CS_OFFL_SIR_GOPM_2_20221222T156943_C001  CS_OFFL_SIR_GOPM_2_20221222T156943_C001  CS_OFFL_SIR_GOPM_2_20221222T155636_20221222T155943_C001  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, OCOG_Backscatter Quality Flags have been set for one or more records  CCCG_Altimeter Range_Quality, O	CS_OFFL_SIR_GOPM_2_20221222T142722_20221222T142844_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_GOPM_2_20221222T145832_20221222T150104_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T15243_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T15243_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T15232B_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152630_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152614_2001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T152614_20021222T152614_2001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T152614_20021222T152614_2001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_GOPM_2_20221222T143129_20221222T143520_C001	1	, , ,
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T152328_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T154805_C001  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T154805_C001  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T15530_C001  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T15530_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_GOPM_2_20221222T144112_20221222T144301_C001		, , , ,
CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T154805_C001  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T155530_C001  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T155530_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155530_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Backscatte	CS_OFFL_SIR_GOPM_2_20221222T145832_20221222T150104_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T154805_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T155530_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  and Backscatter Quality, OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG	CS_OFFL_SIR_GOPM_2_20221222T151433_20221222T152328_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T155530_C001  Backscatter Quality  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  Backscatter Quality  CCG_Altimeter Range Quality, OCOG  Backscatter Quality, OCOG  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  CCG_Altimeter Range, SSHA, SWH  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  CCG_Altimeter Range, SSHA, SWH  CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001  CCG_Altimeter Range, SSHA, SWH  CCG_Altimeter Range,	CS_OFFL_SIR_GOPM_2_20221222T152614_20221222T154805_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001  Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_GOPM_2_20221222T155419_20221222T155530_C001	_	, , , ,
CS_OFFL_SIR_GOPM_2_20221222T160431_20221222T161447_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been		OCOG Altimeter Range Quality, OCOG	The OCOG Altimeter Range and Backscatter Quality Flags have been set
	CS_OFFL_SIR_GOPM_2_20221222T155536_20221222T155943_C001	1	for one or more records

CS_OFFL_SIR_GOPM_2_20221222T161635_20221222T162238_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T165328_20221222T172649_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T172926_20221222T173429_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T173449_20221222T173757_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T174528_20221222T181629_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T181800_20221222T181938_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T183518_20221222T184411_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T184649_20221222T184946_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T184955_20221222T190621_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T190819_20221222T191328_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T192313_20221222T193305_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T193411_20221222T193710_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T193923_20221222T195151_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T201405_20221222T201642_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T201806_20221222T202913_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T203053_20221222T204502_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T204739_20221222T205240_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T210117_20221222T210311_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T210435_20221222T211600_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T211636_20221222T212302_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T212545_20221222T213221_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T215302_20221222T215309_C001	I	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T220152_20221222T222422_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T222819_20221222T223157_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T223841_20221222T230435_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPM_2_20221222T230437_20221222T230659_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_GOPM_2_20221222T233816_20221223T000335_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T151105_20221222T151244_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T034347_20221222T034534_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T042433_20221222T042744_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T051719_20221222T052304_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T063945_20221222T063947_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

## L2 Quality Flags (20 Hz PLRM)

Currently, there are several common flags raised in the Level 2 products, which are summarised below. The table provides the full list of products flagged.

- > Ocean Altimeter Range, SSHA, SWH and Backscatter PLRM Quality Flags: These flags are currently set for occasional records over sea ice.
- > OCOG Altimeter Range and Backscatter PLRM Quality Flags: These flags are currently set for occasional records over continental ice.

Number of products with errors:

80

Product	Test Failed	Description
CS_OFFL_SIR_GOPN_2_20221222T001606_20221222T001625_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T010516_20221222T010638_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T022049_20221222T022211_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T024210_20221222T024520_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T034300_20221222T034346_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T035102_20221222T035417_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T042110_20221222T042433_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T060015_20221222T060641_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T065057_20221222T065217_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T073106_20221222T073714_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T073929_20221222T074010_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T074428_20221222T074605_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T083018_20221222T083138_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T083153_20221222T083235_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T083427_20221222T083636_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T085238_20221222T085653_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T092333_20221222T092521_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_GOPN_2_20221222T100932_20221222T101426_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T133150_20221222T133316_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T133322_20221222T133502_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T142047_20221222T142206_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T144013_20221222T144111_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T145325_20221222T145359_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T145452_20221222T145525_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T162238_20221222T162426_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T173758_20221222T173915_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T173915_20221222T173934_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T190640_20221222T190819_C001	TAITIMETER Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T195516_20221222T195803_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T195919_20221222T200134_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T212302_20221222T212424_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T213559_20221222T214000_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T214523_20221222T214552_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T215623_20221222T220010_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T223524_20221222T223724_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20221222T232842_20221222T232911_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T000710_20221222T001605_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T001625_20221222T001852_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T005358_20221222T005531_C001	TANO BACKSCANEL UNAINVELENVLULUS	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T010638_20221222T011009_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T014451_20221222T014510_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T014636_20221222T015300_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T024521_20221222T024845_C001	TAITIMETER Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_GOPR_2_20221222T032231_20221222T033200_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T033200_20221222T033329_C001	PLRM Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_GOPR_2_20221222T041127_20221222T041459_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T050054_20221222T050100_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T050419_20221222T051058_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T051058_20221222T051635_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T054848_20221222T055546_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T063831_20221222T063920_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T063922_20221222T063941_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T064347_20221222T064946_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T064946_20221222T065056_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T071320_20221222T071533_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T082336_20221222T082520_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T083636_20221222T083758_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T083843_20221222T084038_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T100317_20221222T100931_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T102211_20221222T102429_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T114037_20221222T114141_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T114445_20221222T114955_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T120138_20221222T120322_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T122846_20221222T123218_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T132345_20221222T133150_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T140829_20221222T141210_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T145528_20221222T145717_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T150224_20221222T151104_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T165227_20221222T165328_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_GOPR_2_20221222T173935_20221222T174528_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T182219_20221222T182802_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T191744_20221222T192313_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T193710_20221222T193923_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T195258_20221222T195515_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T195803_20221222T195919_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T200242_20221222T200822_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T213221_20221222T213559_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T214001_20221222T214523_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T220036_20221222T220152_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20221222T231824_20221222T232826_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

#### L2 Quality Flags (1 Hz & 1 Hz PLRM)

Currently, there are several common flags raised in the Level 2 products, which are summarised below.

> 1 Hz and 1 Hz Ocean SSHA Quality Flags: These flags are currently set for products over sea ice, which is to be expected.

Number of products with errors:

193

61

### 5.8 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20 Hz)

CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors:

## L2 Retracking Flags (20 Hz PLRM)

CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz PLRM measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag (PLRM): This flag is currently set for products GOPR and GOPN products over sea ice, but this is to be expected.

Number of products with errors: 145

## 6. GOP L2 Pole-to-Pole Data Quality Check

#### **6.1 P2P Product Format Check**

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).

Number of products with errors:

### **6.2 P2P Product Header Analysis**

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors: 0

## 6.3 P2P Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors: 0

#### **6.4 P2P Auxiliary Correction Error Check**

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

Currently, there are some common auxiliary correction errors raised in the Level 2 products that are expected, due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues that may arise from this test.

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Dec   1. Lane, Cop   2. ACCIDITATION   Dec   D	Product	Test Failed	Description
Topography (1)  COLT _ Set _ SOL _ Z _ AZCI ZZ _ VEST 32 Z _ Z Z Z Z Z Z D S D D D D D D D D D D D D	CS_OFFL_SIR_GOP_220221221T232240_20221222T001216_C002	` '	There is an error with the MSS height (solution 1) and the Mean Dynamic
Description	CS_OFFL_SIR_GOP_2_20221222T001216_20221222T010155_C001		
Copposition	CS_OFFL_SIR_GOP_220221222T010155_20221222T015131_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Section   1.5   Control   1.	CS_OFFL_SIR_GOP_2_20221222T015131_20221222T024109_C001	` ` ` `	
Taggraphy (1)  Cal Circl — 2 20021227104004 200212227104000 CIRC 1000 Page 1	CS_OFFL_SIR_GOP_220221222T024109_20221222T033045_C001		· · · · · · · · · · · · · · · · · · ·
Topic part   1   Topi	CS_OFFL_SIR_GOP_220221222T033045_20221222T042024_C001	` ` ` `	
Engography (1)   Engography (2)   Engography (2)   Engography (2)   Engography (2)   Engography (2)   Engography (3)   Engography (3)   Engography (4)   Engo	CS_OFFL_SIR_GOP_220221222T042024_20221222T051000_C001	` '	, , , , , , , , , , , , , , , , , , , ,
Transpropty () Transp	CS_OFFL_SIR_GOP_2_20221222T051000_20221222T055939_C001	` ` ` `	
Control   Cont	CS_OFFL_SIR_GOP_220221222T055939_20221222T064915_C001		, , , , ,
CS_OPPL_SIR_COPPL_2022*222*109783_2022*122*109782_COPPL_SIR_COPPL_SIR_COPPL_2022*222*109782_2029*22*109782_COPPL_SIR_COPPL_2022*222*109782_2029*22*109782_COPPL_SIR_COPPL_2022*222*109782_CO	CS_OFFL_SIR_GOP_220221222T064915_20221222T073853_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Topography (1) Topography (1) Topography (2) Topography (2) Topography (2) Topography (3) Topography (3) Topography (3) Topography (3) Topography (3) Topography (4) Topogr	CS_OFFL_SIR_GOP_220221222T073853_20221222T082829_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Topography (1)   Topography (2)   Topography height (soutton 1) for one or more records	CS_OFFL_SIR_GOP_220221222T082829_20221222T091808_C001		
CS OFFL SIR GOP 2 20221222T106723 20221222T11669 C0U1  Man Sis Surface (1), Mean Dynamic Topography (1) Color of Color o	CS_OFFL_SIR_GOP_220221222T091808_20221222T100744_C001		
Topography (1)  Topography (1)	CS_OFFL_SIR_GOP_2_20221222T100744_20221222T105723_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Topography (1), Total Geocontric Ocean Tide (FCS), Non-Equilibrium Long Period Cocan Tide (FES), Non-Equilibrium Long Period Cocan Tide Cocan Tid	CS_OFFL_SIR_GOP_220221222T105723_20221222T114659_C001	` '	
Topography (1)  Topography (2)  Topography (2)  Topography (3)  Topography (4)  Topography (4)  Topography (5)  Topography (6)  Topography (7)  Topography (7)  Topography (8)  Topography (8)  Topography (1)  Topography (1)	CS_OFFL_SIR_GOP_220221222T114659_20221222T123638_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height
Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) Topography height (solution 1) and the Mean Dynamic Topography (1) Topography height (solution 1) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) Topography height (solution 1) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography height (solution 1) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  SoftList God 2 202212221191336 2022122119336 2021222122120312 (2011 2011)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solutio	CS_OFFL_SIR_GOP_220221222T123638_20221222T132614_C001		
Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)  Topography (1)  Topography (1)  Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)  There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (GOT)  There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (GOT)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide (GOT)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  Topography (1)  Topography (1)  Topography (1)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  Topography (1)  Topography (1)  Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (GOT)  There is an	CS_OFFL_SIR_GOP_2_20221222T132614_20221222T141552_C001	```	
Topography (1) Topography (1) Topography height (solution 1) for one or more records  Mean Sas Surface (1), Mean Dynamic Topography (1) Topography (1) Topography (1) Topography (1) Total Geocentric Ocean Tide (GOT) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) Topography (2) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (2) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (3) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) Topography (1) Topography (2) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) There is an error with the M	CS_OFFL_SIR_GOP_220221222T141552_20221222T150528_C001		
CS_OFFL_SIR_GOP_2_20221222T164443_20221222T173422_C001  Topography (1), Total Geocentric Ocean Tide (GOT)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an er	CS_OFFL_SIR_GOP_220221222T150528_20221222T155507_C001		
Topography (1) Topography height (solution 1) for one or more records  CS_OFFL_SIR_GOP_2_20221222T173422_20221222T182358_C001  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1) and the Total Geocentric Ocean Tide height (solution 1) corn or or more records  There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1) corn or or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or m	CS_OFFL_SIR_GOP_220221222T155507_20221222T164443_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Topography (1) Topography (2) Topography (2) Topography (3) Topography (4) Topography (5) Topography (6) Topography (7) Topography (8) Topography (8) Topography (8) Topography (8) Topography (8) Topography (8) Topography (9) Topography (9) Topography (9) Topography (1) Topography (1) Topography (1) Topography (8) Topography (1) Topogr	CS_OFFL_SIR_GOP_220221222T164443_20221222T173422_C001		
Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records  CS_OFFL_SIR_GOP_2_20221222T214227_20221222T23206_C001  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1: GOT) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solu	CS_OFFL_SIR_GOP_220221222T173422_20221222T182358_C001		
Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide (GOT)  CS_OFFL_SIR_GOP_2_20221222T214227_20221222T223206_C001  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records	CS_OFFL_SIR_GOP_220221222T182358_20221222T191336_C001		
Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)  Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic	CS_OFFL_SIR_GOP_220221222T191336_20221222T200312_C001		, , , , , , , , , , , , , , , , , , , ,
CS_OFFL_SIR_GOP_2_20221222T205251_20221222T214227_C001  Topography (1), Total Geocentric Ocean Tide height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  CS_OFFL_SIR_GOP_2_20221222T223206_20221222T232142_C001  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean D	CS_OFFL_SIR_GOP_220221222T200312_20221222T205251_C001	` ` ` `	
CS_OFFL_SIR_GOP_2_20221222T23206_C001  Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records  CS_OFFL_SIR_GOP_2_20221222T23206_20221222T232142_C001  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solu	CS_OFFL_SIR_GOP_220221222T205251_20221222T214227_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
CS_OFFL_SIR_GOP_2_202212221223206_202212221232142_C001  Topography (1)  Topography height (solution 1) for one or more records  Mean Sea Surface (1), Mean Dynamic  There is an error with the MSS height (solution 1) and the Mean Dynamic	CS_OFFL_SIR_GOP_220221222T214227_20221222T223206_C001		
	CS_OFFL_SIR_GOP_220221222T223206_20221222T232142_C001	` '	· · · · · · · · · · · · · · · · · · ·
	CS_OFFL_SIR_GOP_2_20221222T232142_20221223T001121_C002	Mean Sea Surface (1), Mean Dynamic Topography (1)	

## 6.5 P2P Measurement Confidence Data Check

#### P2P Quality Flags (20 Hz)

CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

29

25

30

Number of products with errors:

#### P2P Quality Flags (20 Hz PLRM)

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

Number of products with errors: 29

#### P2P Quality Flags (1 Hz & 1 Hz PLRM)

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

Number of products with errors: 30

#### 6.8 P2P Ocean Retracking Quality Check

#### P2P Retracking Flags (20 Hz)

Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20 Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag (PLRM): This flag is currently set for products GOPR and GOPN products over sea ice, but this is to be expected.

Number of products with errors:

#### P2P Retracking Flags PLRM

CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz PLRM measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag (PLRM): This flag is currently set for products GOPR and GOPN products over sea ice, but this is to be expected.

Number of products with errors:

## 7. GOP QCC Report Analysis

The Quality Control for CryoSat (QCC) facility performs a primary survey of data products immediately after production by the PDS and LTA processing facilities. A list of the tests which raised errors or warnings is provided below.

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors	
SIR_GOPM1B	184	184	2	182	0	
SIR_GOPR1B	139	139	0	139	0	
SIR_GOPN1B	98	98	4	94	0	
SIR_GOPM_2	184	184	129	55	0	
SIR_GOPR_2	139	139	52	86	1	
SIR_GOPN_2	98	98	38	60	0	
SIR GOP P2P	29	29	0	28	1	

### 7.1 QCC Errors

Number of QCC reports with errors:

Product Type RLOBOPNODE

2

RI OBOPNODE

Total number of occurrences of each error

KEODOI NODI	IXE	IVE.	KEODOI NODI							
1	1	1	1	1	1					
RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
1	1	1	1							
	1	1 1	1 1 1	1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1

<b>Test Description Key:</b>	st Description Key:						
Abbreviation	Test name	Details					
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7					
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6					
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7					
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7					

# 7.2 QCC Warnings

Number of QCC reports with warnings

2198

Total number of occurrences of each warning

			rotai numb	er of occurrences of ea	ich warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_GOPM1B	182	0	0	0	0	0	0
SIR_GOPM_2	0	0	38	35	0	45	0
SIR_GOPN1B	93	0	0	0	0	0	0
SIR_GOPN_2	0	0	10	28	5	23	24
SIR_GOPR1B	136	0	0	0	0	0	0
SIR_GOPR_2	0	1	28	48	3	30	19

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRM	MSARNCE RPEPOPFDPL	RMSINNCD RPEPOPFDSARN	CDF RPEPOPFDSINNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	38	0	30	0	0	0	0
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	15	0	0	0	25	0	30
SIR_GOPR1B	0	0	0	0	0	0	0
SIR GOPR 2	11	2	0	47	0	54	0

Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	26	0	0	9	29	0	7
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	0	0	27	14	40	48	29
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	0	47	0	4	68	44	14

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_GOPM1B	0	0	0	0	0	0	
SIR_GOPM_2	36	0	5	0	0	0	
SIR_GOPN1B	0	0	0	0	41	3	
SIR_GOPN_2	22	23	11	0	0	0	

Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_GOP_2_	14	29	29	7	29	19	29
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_GOP_2_	2	17	29	26	17	29	19
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-
SIR_GOP_2_	26	29	17	15	29		

12

139

0 44

SIR\_GOPR1B

SIR\_GOPR\_2

0 38 0

<b>Test Description Key:</b>	est Description Key:							
Abbreviation	Test name	Details						
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter						
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)						
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees						
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees						
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only						
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean						
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean						
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean						
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean						
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean						
	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees						
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample						
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter						
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter						

# 7.3 Missing QCC Reports

Number of products with missing QCC reports: