

## 1. Overview

Report Production:	17-Mar-2023
Processor Used:	CryoSat Ocean Processor
Data Used:	Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data

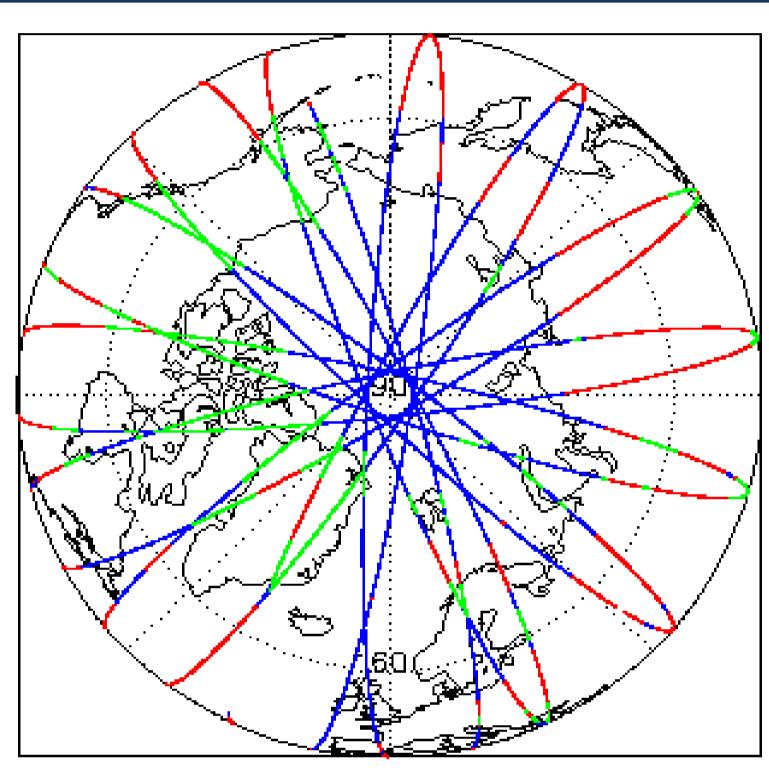
We would love to hear from you!
Please let us know your feedback about these daily
quality reports: What do you like/ dislike? What quality
information do you need? Send your feedback to

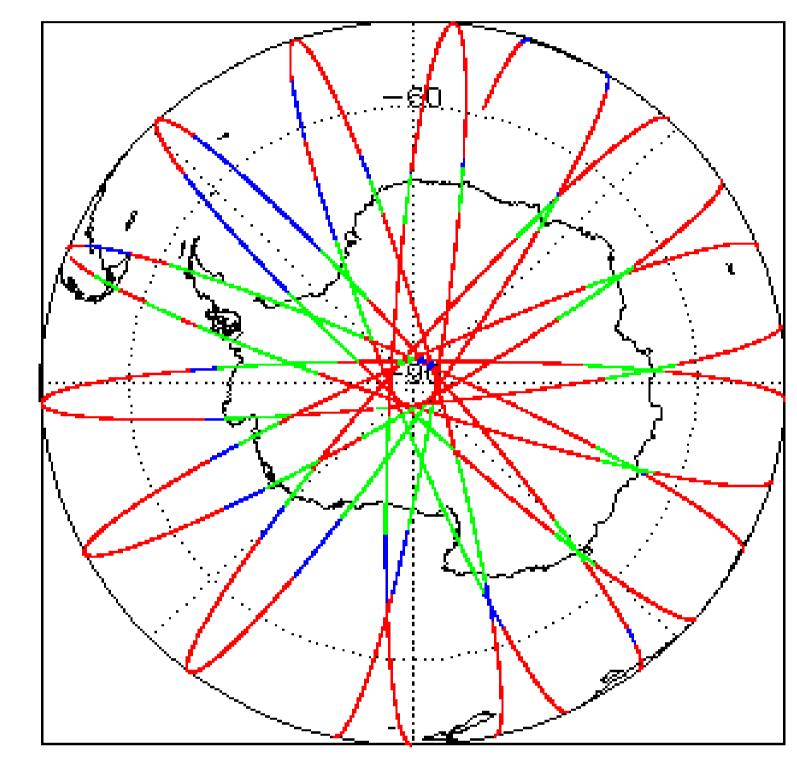
cs2\_qc\_team@telespazio.com

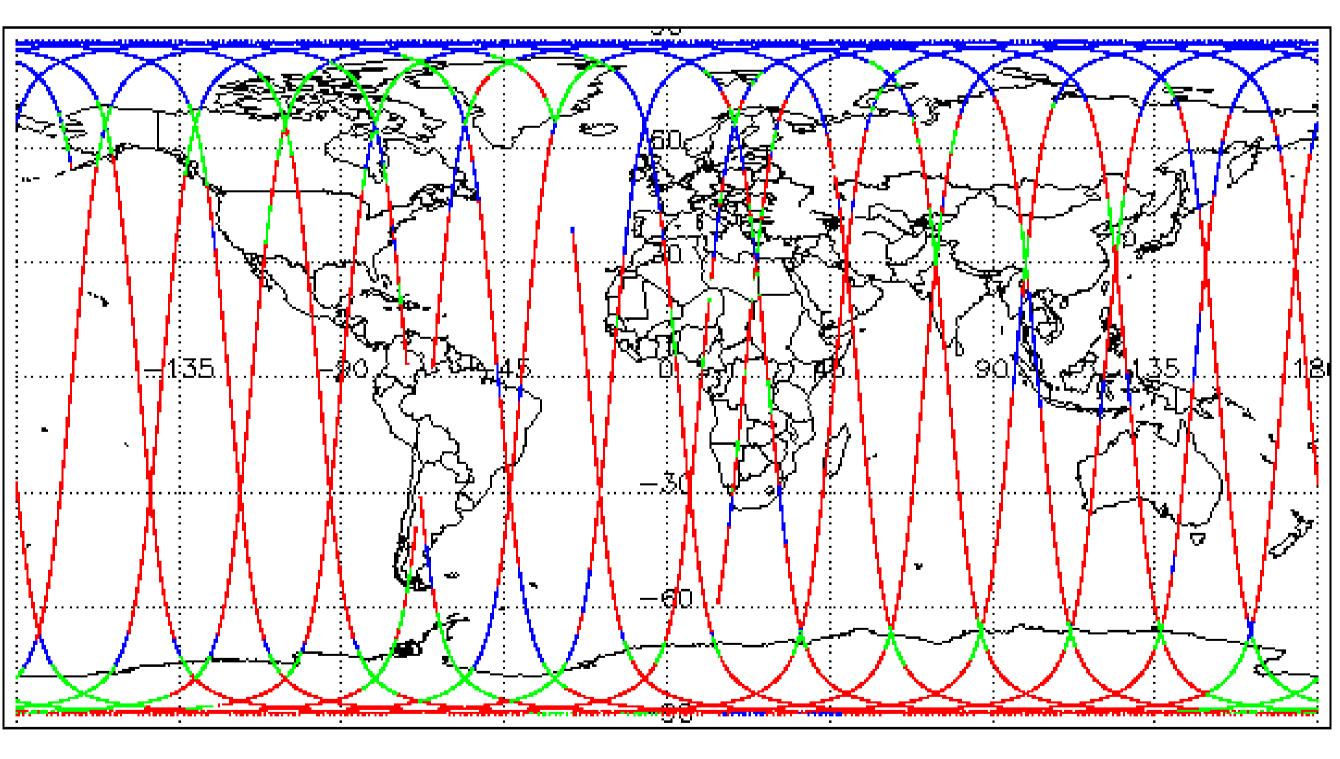
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary 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

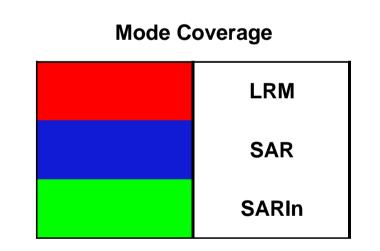
Mission / Instru	ment News
14-Feb-2023	None
15-Feb-2023	None
16-Feb-2023	Nothing planned

# 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.

0

0

Number of products with errors:

#### 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:

#### 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:

23

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20230215T024558_20230215T031532_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20230215T035537_20230215T040758_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20230215T152912_20230215T154021_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20230215T165736_20230215T170706_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T023908_20230215T024433_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T033004_20230215T033429_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T050903_20230215T051014_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T051138_20230215T051348_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T055058_20230215T055425_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T064824_20230215T065049_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T082202_20230215T082218_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T101028_20230215T101512_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T114113_20230215T114143_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20230215T163739_20230215T164035_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:

## 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).

0

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.

**Number of products with errors:** 

56

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20230215T002142_20230215T002214_C001	liviean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records

Col. Colt. 2, No. SUPPL 2, NOVICE TO MAKE 2, SUPPLE TO MAKE 2, SUP	CS_OFFL_SIR_GOPN_2_20230215T001507_20230215T001611_C001	LLOTAL GEOCENTRIC (DCEAN LINE (GC) L)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS. OFFL. BIR. DOPN 2. 2000011/10014. 20000114. 2000011/10014. 2000011/10014. 2000011/10014. 20000114. 20000114. 2000011/10014. 2000011/10014. 20000114. 20000114. 2000011/	CS_OFFL_SIR_GOPN_2_20230215T005329_20230215T005454_C001	` '	• • • • • • • • • • • • • • • • • • • •
Toping sport ()  Co. Of T. Co. Of T. Co. Of T. Co. SECURITION CO. OF T. Co.	CS_OFFL_SIR_GOPN_2_20230215T010004_20230215T010312_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 (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean
CS. OFF. 8.8 COPY 2.2000P16733030 0000P16733030 0000P1673300 0000P16	CS_OFFL_SIR_GOPN_2_20230215T023412_20230215T023701_C001	` * * * * * * * * * * * * * * * * * * *	
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Residual Posturial Control Con	CS_OFFL_SIR_GOPN_2_20230215T050903_20230215T051014_C001	` '	
Sec. CPFL. SIR. GOPN 2. 2022/2151003409. 2022/2151003409. Cottl  Temporarby (1)  Mean Dyramic Toesgraphy (1)  Mean Dyramic Toesgraphy (1)  Temporarby neight isolation 1) for one or more records.  CS. CPFL. SIR. GOPN 2. 2022/2151003407_2022/215103309. Cottl  Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an error with the Mean Dyramic Toesgraphy (1)  There is an erro	CS_OFFL_SIR_GOPN_2_20230215T054552_20230215T054726_C001	Tiviean Dynamic Topography (1)	
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or more records  CS_OFFL_SIR_GOPN_2_20230215T123026_20230215T123024_C001  Mean Dynamic Topography (1)  CS_OFFL_SIR_GOPN_2_20230215T123026_20230215T124002_C001  Mean Dynamic Topography (1)  CS_OFFL_SIR_GOPN_2_20230215T132037_20230215T132032_C001  CS_OFFL_SIR_GOPN_2_20230215T132056_20230215T132032_C001  CS_OFFL_SIR_GOPN_2_20230215T132056_20230215T132032_C001  Mean Dynamic Topography (1)  CS_OFFL_SIR_GOPN_2_20230215T141743_20230215T141850_C001  Mean Dynamic Topography (1)  Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) for one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)  CS_OFFL_SIR_GOPN_2_20230215T150088_20230215T150120_C001  Mean Sea Surface (1), Mean Dynamic Topography (1)  CS_OFFL_SIR_GOPN_2_20230215T163739_20230215T164036_C001  CS_OFFL_SIR_GOPN_2_20230215T183739_20230215T164036_C001  CS_OFFL_SIR_GOPN_2_20230215T183054_20230215T18120_C001  Mean Sea Surface (1), Mean Dynamic Topography (1)  Mean Sea Surface (1), 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) for one or more records  There is an error with the MSS height (solution 1) for one or more records  There is an error with the MSS height (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1)	CS_OFFL_SIR_GOPN_2_20230215T105042_20230215T105420_C001	•	
Topography (1)  Topography (2)  Topography (1)  Topography (1)  Topography (1)  Topography (2)  Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic 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)  Mean Sea Surface (1), Mean Dynamic Topography 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)  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)  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) for one or more records  There is an error with the MSS height (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for on	CS_OFFL_SIR_GOPN_2_20230215T115151_20230215T115342_C001	Tiviean Dynamic Lobodraphy (1)	
CS_OFFL_SIR_GOPN_2_20230215T142506_20230215T143203_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (2)  CS_OFFL_SIR_GOPN_2_20230215T16008_20230215T160102_C001  Mean Sea Surface (1), Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (5)  There is an error with the Mean Dynamic Topography (1) or one or more records  CS_OFFL_SIR_GOPN_2_20230215T16008_20230215T160102_C001  Mean Sea Surface (1), Mean Dynamic Topography (1) or one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or one or more records  CS_OFFL_SIR_GOPN_2_20230215T16008_20230215T16008_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 (1) or one or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or more 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 (1) or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or more records  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  Mean Dyna	CS_OFFL_SIR_GOPN_2_20230215T123006_20230215T123324_C001		
Topography (1)  Topography height (solution 1) for one or more records  Topography height (solution 1) for one or more records  There is an arror with the Mean Dynamic Topography (solution 1) for one or more records  There is an arror with the Mean Dynamic Topography (solution 1) for one or more records  There is an arror 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 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 (1)  There is an error with the MSS height (solution 1) for one or more records  There is an error with the MSS height (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution	CS_OFFL_SIR_GOPN_2_20230215T123837_20230215T124002_C001	IIVIEAN DYNAMIC TODOGRADNY (T)	
CS_OFFL_SIR_GOPN_2_20230215T150008_20230215T150120_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) 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 (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 Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution	CS_OFFL_SIR_GOPN_2_20230215T132056_20230215T132203_C001	•	
Topography height (solution 1) for one or more records  CS_OFFL_SIR_GOPN_2_20230215T163739_20230215T164036_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  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) 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 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 Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  CS_OFFL_SIR_GOPN_2_20230215T195355_20230215T195743_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_20230215T205340_20230215T205457_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  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_20230215T141743_20230215T141850_C001	Tiviean Dynamic Lopodraphy (1)	
Topography (1)  Topography height (solution 1) for one or more records  Topography height (solution 1) for one or more records  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 (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  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records	CS_OFFL_SIR_GOPN_2_20230215T150008_20230215T150120_C001		
Topography (1)  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)  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records	CS_OFFL_SIR_GOPN_2_20230215T163739_20230215T164036_C001	· · ·	
Topography (1)  Topography height (solution 1) for one or more records  CS_OFFL_SIR_GOPN_2_20230215T190354_20230215T190624_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_20230215T191250_20230215T191602_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_20230215T195355_20230215T195743_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_20230215T205340_20230215T205457_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_20230215T205340_20230215T205457_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records	CS_OFFL_SIR_GOPN_2_20230215T173317_20230215T173927_C001	•	
CS_OFFL_SIR_GOPN_2_20230215T190334_20230215T191602_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_20230215T195355_20230215T195743_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_20230215T205340_20230215T205457_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_20230215T205340_20230215T205457_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_20230215T212850_20230215T213436_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  There is an error with the Mean Dynamic Topography (solution 1) and the Mean Dynamic Topograp	CS_OFFL_SIR_GOPN_2_20230215T181504_20230215T181920_C001		
CS_OFFL_SIR_GOPN_2_20230215T191250_20230215T195743_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_20230215T205340_20230215T205457_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_20230215T205340_20230215T205457_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_20230215T212850_20230215T213436_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (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_GOPN_2_20230215T190354_20230215T190624_C001	Tiviean Dynamic Topography (1)	
CS_OFFL_SIR_GOPN_2_20230215T195355_20230215T195743_C001  Mean Dynamic Topography (1)  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_20230215T212850_20230215T213436_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_20230215T212850_20230215T213436_C001  Mean Dynamic Topography (1)  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  Mean Dynamic Topography (1)  There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)	CS_OFFL_SIR_GOPN_2_20230215T191250_20230215T191602_C001	liviean Dynamic Lopodraphy (1)	
CS_OFFL_SIR_GOPN_2_20230215T205340_20230215T205457_C001  Mean Dynamic Topography (1)  Or more records  There is an error with the Mean Dynamic Topography (solution 1) for one or more records  CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_C001  Mean Dynamic Topography (1)  Mean Dynamic Topography (1)  Mean Dynamic Topography (1)  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	CS_OFFL_SIR_GOPN_2_20230215T195355_20230215T195743_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_GOPN_2_202302151212850_202302151213436_C001  Mean Dynamic Topography (1)  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_GOPN_2_20230215T205340_20230215T205457_C001	Tiviean Dynamic Topography (1)	
US OFFI SIR GOPR / 202302151000353 202302151001059 C001	CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_C001	Mean Dynamic Topography (1)	
	CS_OFFL_SIR_GOPR_2_20230215T000353_20230215T001059_C001	` '	

CS_OFFL_SIR_GOPR_2_20230215T001059_20230215T001223_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_20230215T014302_20230215T014959_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_20230215T014959_20230215T015416_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_20230215T015427_20230215T020441_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_20230215T032433_20230215T032853_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_20230215T032853_20230215T033004_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_20230215T050229_20230215T050544_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_20230215T050544_20230215T050903_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_20230215T062051_20230215T062736_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_20230215T064206_20230215T064824_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_20230215T082350_20230215T082820_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_20230215T100040_20230215T101028_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_20230215T114144_20230215T114931_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_20230215T132203_20230215T132932_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_20230215T150121_20230215T150834_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_20230215T164036_20230215T164747_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_20230215T170707_20230215T170908_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_20230215T181920_20230215T182512_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_20230215T182512_20230215T182616_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_20230215T195743_20230215T200618_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_20230215T213437_20230215T214217_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_20230215T231411_20230215T232032_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**

CryoSat L2 data includes a measurement confidence flag for each 20 Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

### **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: 86

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20230214T232636_20230215T000021_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_20230215T001414_20230215T001506_C001		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_20230215T003341_20230215T005326_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_20230215T005455_20230215T010004_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_20230215T010521_20230215T014020_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_20230215T014159_20230215T014210_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_20230215T014219_20230215T014225_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_20230215T014228_20230215T014244_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_20230215T015416_20230215T015427_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_20230215T020958_20230215T022732_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_20230215T023029_20230215T023212_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_20230215T024558_20230215T031532_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_20230215T033508_20230215T035323_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_20230215T035537_20230215T040758_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_20230215T041619_20230215T041818_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_20230215T041936_20230215T042320_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_20230215T042502_20230215T044040_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_20230215T044242_20230215T045205_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_20230215T045845_20230215T045852_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_20230215T052001_20230215T053125_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_20230215T054727_20230215T054847_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_20230215T055434_20230215T060223_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_20230215T060409_20230215T061946_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_20230215T063400_20230215T063408_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_20230215T065745_20230215T073031_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_20230215T073526_20230215T074115_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_20230215T074336_20230215T080930_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_20230215T084048_20230215T090914_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_20230215T091509_20230215T091931_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_20230215T092221_20230215T095024_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_20230215T095041_20230215T095052_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_20230215T101512_20230215T104821_C001	• • • • • • • • • • • • • • • • • • • •	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_20230215T105420_20230215T105958_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_20230215T110120_20230215T110742_C001		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_20230215T113100_20230215T113122_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_20230215T115342_20230215T122807_C001		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_20230215T123325_20230215T123837_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_20230215T124021_20230215T130023_C001		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_20230215T130919_20230215T131046_C001		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_20230215T133205_20230215T140554_C001		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_20230215T141058_20230215T141325_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_20230215T141939_20230215T144828_C001		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_20230215T145808_20230215T150007_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_20230215T151422_20230215T152303_C001	•	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_20230215T152743_20230215T152906_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_20230215T152912_20230215T154021_C001		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_20230215T154130_20230215T154527_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_20230215T154705_20230215T155224_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_20230215T160331_20230215T161553_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_20230215T161816_20230215T163003_C001	9 1	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_20230215T163250_20230215T163429_C001		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_20230215T165736_20230215T170706_C001		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_20230215T170942_20230215T172439_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_20230215T172631_20230215T173137_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_20230215T173927_20230215T174122_C001		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_20230215T175922_20230215T180154_C001		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_20230215T180317_20230215T180543_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_20230215T180618_20230215T180707_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_20230215T183531_20230215T183552_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_20230215T184651_20230215T190354_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_20230215T190624_20230215T191054_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_20230215T191116_20230215T191250_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_20230215T191650_20230215T194228_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_20230215T201710_20230215T204333_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_20230215T204449_20230215T205009_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_20230215T205015_20230215T205340_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_20230215T205558_20230215T212416_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_20230215T212542_20230215T212850_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_20230215T215232_20230215T215424_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_20230215T215527_20230215T222303_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_20230215T222435_20230215T222911_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_20230215T223517_20230215T231028_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_20230215T233821_20230215T234250_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_20230215T235422_20230216T000234_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_20230215T032339_20230215T032432_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_20230215T065622_20230215T065745_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_GOPN_2_20230215T123837_20230215T124002_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_20230215T172446_20230215T172631_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_GOPN_2_20230215T182616_20230215T182631_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_GOPN_2_20230215T235150_20230215T235154_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_20230215T032853_20230215T033004_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

### 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:

86

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Product		Description
CS OFFI SID GODN 2 20230215T000345 20230215T000353 C001	TAITIMETER RANGE AND BACKSCATTER CHAITY	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_20230215T001507_20230215T001611_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_20230215T023908_20230215T024433_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_20230215T032339_20230215T032432_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_20230215T033004_20230215T033429_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_20230215T041343_20230215T041619_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_20230215T045206_20230215T045514_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_20230215T050903_20230215T051014_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_20230215T051138_20230215T051348_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_20230215T054552_20230215T054726_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20230215T055058_20230215T055425_C001	TAITIMETER Range and Backscatter Chality	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_20230215T060223_20230215T060409_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_20230215T062902_20230215T063239_C001	,	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20230215T064824_20230215T065049_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_20230215T065057_20230215T065303_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_20230215T073107_20230215T073257_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_20230215T074116_20230215T074336_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_20230215T080930_20230215T081306_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20230215T082821_20230215T083247_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_20230215T091042_20230215T091221_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_20230215T091336_20230215T091508_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_20230215T091932_20230215T092221_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPN_2_20230215T101028_20230215T101512_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

CQ 017 _ SR _00P2 202201711301 20201711300 CD	CS_OFFL_SIR_GOPN_2_20230215T105042_20230215T105420_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
000 Services and Custy  CS OFFL SRIK GOTE, 2 ACCESSES 1930 2 ZUCCEST TESTS 2 COST  ONE A Millions Ready State of the Cost of t	1	_	
Code	U.S UFFL SIR GUPIN / /U/3U/1SLI1/946 /U/3U/1SLI1/3US9 U.UU		
CR. OPT., SIR. COPA. 2 (2002) 15 FeVCL. 2002)	US OFFE SIR GOPIN / /U/3U/15T115T5T /U/3U/15T11534/ UUUT	_	
Cold   Description   Cold	CS_OFFL_SIR_GOPN_2_20230215T123837_20230215T124002_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CSC OFFL. SIR. 300-YL 2.2020015T18547 200302-ST105555, CO11  CSC OFFL. SIR. 300-YL 2.2020015T185047 200302-ST105555, CO11  CSC OFFL. SIR. 300-YL 2.2020015T185047 200302-ST105555, CO11  CSC OFFL. SIR. 300-YL 2.2020015T185047 200302-ST105554, CO11  CSC OFFL. SIR. 300-YL 2.2020015T105557 200302-ST105558, CO11  CSC OFFL. SIR. 300-YL 2.2020015T10557 200302-ST105554, CO11  CSC OFFL. SIR. 300-YL 2.2020015T10557 200302-ST105554, CO11  CSC OFFL. SIR. 300-YL 2.2020015T10557 200302-ST105554, CO11  CSC OFFL. SIR. 300-YL 2.2020015T10557 200302-ST105555 CO11  CSC OFFL. SIR. 300-YL	U.S UPPL SIR GUPIN / /U/3U/1SLI3UU/4 /U/3U/1SLI3U33D U.UUI		
CS_OFFL_SR_SOPN_2_2020215T16947_2020215T16955_C0201  CS_OFFL_SR_SOPN_2_2020215T16947_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16927_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16920_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16920_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16920_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16920_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16920_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T16925_2020215T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C02105T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C02105T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C02105T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C02105T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C02105T16920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_2020215T26920_C020215T26920_C020215T26920_C021  CS_OFFL_SR_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C021  CS_OFFL_SR_SOPN_2_20202215T26920_C020215T26920_C	CS_OFFL_SIR_GOPN_2_20230215T140720_20230215T141058_C001		, ,
CS_OPPL_SIR_GOPPL_20030215179377_20200215179327_C0001  CS_OPPL_SIR_GOPPL_20030215179377_20200215179327_C0001  CS_OPPL_SIR_GOPPL_20030215179377_20200215179317_C0001  CS_OPPL_SIR_GOPPL_20030215179337_20200215179317_C0001  CS_OPPL_SIR_GOPPL_20030215179337_20200215179319_C001  CS_OPPL_SIR_GOPPL_20030215179339_C0001  CS_OPPL_SIR_GOPPL_20030215179339_C0001  CS_OPPL_SIR_GOPPL_200302151790394_2020021579349_C001  CS_OPPL_SIR_GOPPL_200302151700394_2020021579349_C001  CS_OPPL_SIR_GOPPL_200302151700394_20200215700395_C001  CS_OPPL_SIR_GOPPL_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPL_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPL_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPL_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPL_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_200302151700395_202015701990_C001  CS_OPPL_SIR_GOPPR_20030215170	CS OFFE SIR GOPN 2 202302151154527 202302151154705 C001		, ,
and Bassessette Duelly PLAN. COOD Affinited Range of Bassessette Duelly PLAN. COOR Affinited Range of Bassessette Duelly PLAN. COOR DUEL SIR GOON 2 20202215T101029 20202215T101029 COOR COOR DUELS NOT COOR BASSES OF THE COO	CS_OFFL_SIR_GOPN_2_20230215T155447_20230215T155635_C001		, ,
CS_OFFL_SIR_GOPN_2_20220215T19054_20220215T19024_CD01  CS_OFFL_SIR_GOPN_2_20220215T19054_20220215T19024_CD01  CS_OFFL_SIR_GOPN_2_20220215T190554_20220215T19024_CD01  CS_OFFL_SIR_GOPN_2_20220215T190554_20220215T19024_CD01  CS_OFFL_SIR_GOPN_2_20220215T190554_20220215T190544_CD01  CS_OFFL_SIR_GOPN_2_20220215T190555_20220215T190544_CD01  CS_OFFL_SIR_GOPN_2_20220215T190555_20220215T190544_CD01  CS_OFFL_SIR_GOPN_2_20220215T195555_20220215T190546_CD01  CS_OFFL_SIR_GOPN_2_20220215T214542_20220215T214448_CD01  CS_OFFL_SIR_GOPN_2_20220215T214542_20220215T214448_CD01  CS_OFFL_SIR_GOPN_2_20220215T214542_20220215T214448_CD01  CS_OFFL_SIR_GOPN_2_20220215T202311_20220215T214438_CD01  CS_OFFL_SIR_GOPN_2_20220215T202311_20220215T204438_CD01  CS_OFFL_SIR_GOPN_2_20220215T20555_20220215T204438_CD01  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T204438_CD01  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T204438_CD01  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T204438_CD01  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T2055_20001  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T2055_20001  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T2055_20001  CS_OFFL_SIR_GOPN_2_20220215T2055_20220215T2055_20001  CS_OFFL_SIR_GOPN_2_20220215T2055_200000000000000000000000000000000		and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
OCOS Backscatter Quality  CS OFFL SIR GOPN 2 20230215T190355 20230215T20624 C001  OCOS Affirmeter Range Coulty PLRM. OCOS Backscatter Quality  And Decosoration of County Plags and Backscatter Quality Plags have been set for one or ocosoration of County Plags and Backscatter Quality Plags and Backscatter Q	- C		
CS OFFL SIR GOPN 2 20238215T19535S 20230215T195743 CO01  CS OFFL SIR GOPN 2 20238215T212880 20230215T24348 CO01  CS OFFL SIR GOPN 2 20238215T212880 20230215T24348 CO01  CS OFFL SIR GOPN 2 20238215T212880 20230215T21438 CO01  CS OFFL SIR GOPN 2 20238215T212880 20230215T214428 CO01  CS OFFL SIR GOPN 2 20238215T213348 CO01  CS OFFL SIR GOPN 2 20238215T213348 CO01  CS OFFL SIR GOPN 2 20238215T203345 CO01  CS OFFL SIR GOPN 2 20238215T203345 CO01  CS OFFL SIR GOPN 2 20238215T03343 2 20230215T00345 CO01  CS OFFL SIR GOPN 2 20238215T000313 20230215T000345 CO01  CS OFFL SIR GOPN 2 20238215T000313 20230215T000345 CO01  CS OFFL SIR GOPN 2 20238215T000313 20230215T000345 CO01  CS OFFL SIR GOPR 2 20238215T000313 20230215T01059 CO01  Allender Range and Backcatter Quality Flam Coold Range and Backcatte	U.S OFFI SIR GOPN / 202302151181504 202302151181920 COOT		
CS_OFFL_SIR_GOPN_2_20230215T19835S_20230215T198743_COO1 Allmater Range and Backscatter Quality PLRM, COCO Allmater Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_COO1  CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_COO1  CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_COO1  CS_OFFL_SIR_GOPN_2_20230215T213432_20230215T213436_COO1  CS_OFFL_SIR_GOPN_2_20230215T213432_20230215T22435_COO1  CS_OFFL_SIR_GOPN_2_20230215T222311_20230215T222435_COO1  CS_OFFL_SIR_GOPN_2_20230215T222311_20230215T222435_COO1  CS_OFFL_SIR_GOPN_2_20230215T203150_20230215T203455_COO1  CS_OFFL_SIR_GOPN_2_20230215T000313_20230215T000345_COO1  CS_OFFL_SIR_GOPN_2_20230215T000313_20230215T000345_COO1  CS_OFFL_SIR_GOPR_2_20230215T000313_20230215T000169_COO1  CS_OFFL_SIR_GOPR_2_20230215T000313_20230215T001069_COO1  CS_OFFL_SIR_GOPR_2_20230215T0101613_20230215T001069_COO1  CS_OFFL_SIR_GOPR_2_20230215T0101613_20230215T010169_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T010469_COO1  CS_OFFL_SIR_GOPR_2_20230215T016427_20230215T020441_COO1  CS_OFFL_SIR_GOPR_2_2	CS_OFFL_SIR_GOPN_2_20230215T190354_20230215T190624_C001		
CS OFFL SIR GOPN 2 20230215T214342 20230215T214426 C001  CS OFFL SIR GOPN 2 20230215T214342 20230215T214426 C001  CS OFFL SIR GOPN 2 20230215T214342 20230215T214426 C001  CS OFFL SIR GOPN 2 20230215T223311 20230215T22435 C001  CS OFFL SIR GOPN 2 20230215T223311 20230215T22435 C001  CS OFFL SIR GOPN 2 20230215T223311 20230215T22435 C001  CS OFFL SIR GOPN 2 20230215T235150 20230215T235154 C001  CS OFFL SIR GOPN 2 20230215T235150 20230215T235154 C001  CS OFFL SIR GOPN 2 20230215T003313 20230215T000345 C001  CS OFFL SIR GOPR 2 20230215T000333 20230215T000345 C001  CS OFFL SIR GOPR 2 20230215T000333 20230215T001059 C001  CS OFFL SIR GOPR 2 20230215T001059 C001  CS OFFL SIR GOPR 2 20230215T016424 20230215T0014253 C001  CS OFFL SIR GOPR 2 20230215T014247 20230215T014253 C001  CS OFFL SIR GOPR 2 20230215T014247 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T01447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T01447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T01455 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T014555 C001  CS OFFL SIR GOPR 2 20230215T014447 20230215T014555 C001  CS OFFL SIR GOP		and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscat	CS_OFFL_SIR_GOPN_2_20230215T212850_20230215T213436_C001		
OCOG Backscatter Quality  CS_OFFL_SIR_GOPN_2_20230215T23515_20230215T235154_C001  OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range Altimeter Range Record PLRM.  OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Range and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range Quality Flags have been set for one or more records  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Range and Backscatter Quality Flags and the OC	CS OFFI SID CODN 2 20220215T21/3/2 20220215T21//26 C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
OCOG Backscatter Quality  CS_OFFL_SIR_GOPR_2_20230215T000313_20230215T000345_C001  CS_OFFL_SIR_GOPR_2_20230215T000313_20230215T001059_C001  CS_OFFL_SIR_GOPR_2_20230215T000353_20230215T001059_C001  CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001  CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001  CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T02441_C001  CCOG Altimeter Range Quality PLRM, COGG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CCOG Altimeter Range Cuality PLRM, COGG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CCOG Altimeter Range Quality PLRM.  CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOGG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOGG Altimeter Range and Backscatter Quality Flags have been set for one or more reco	US OFFI SIR (30PN / 202302151222311 202302151222435 C001		
CS_OFFL_SIR_GOPR_2_20230215T000313_20230215T000345_C001  and Backscatter Quality PLRM, 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_GOPR_2_20230215T001613_20230215T001059_C001  CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014259_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CCG_Altimeter Range_Quality PLRM, CCG_Altimeter Range_Altimeter Range_Altime	LS OFFI SIR (40PN / 202302151235150 202302151235154 C001		
CS_OFFL_SIR_GOPR_2_20230215T000353_20230215T001059_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014259_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records		and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014253_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023		and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPR_2_20230215T014247_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T031532_20230215T031532_20230215T031555_C001  CCG_OCCG_Altimeter Range Quality PLRM, OCOG_Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  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  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_GOPR_2_20230215T001613_20230215T001950_C001		
CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T020441_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  CS_OFFL_SIR_GOPR_2_20230215T031532_20230215T031955_C001  CS_OFFL_SIR_GOPR_2_20230215T031532_20230215T031955_C001  CS_OFFL_SIR_GOPR_3_20230215T031532_20230215T031955_C001  CS_OFFL_SIR_GOPR_3_20230215T0315332_20230215T031955_C001  CS_OFFL_SIR_GOPR_3_20230215T0315332_20230215T031955_C001	LS OFFI SIR GOPR / /0/30/151014/4/ /0/30/151014/53 COOT	_	
CS_OFFL_SIR_GOPR_2_20230215T015427_20230215T020441_C001  OCOG Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  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  OCOG Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCOG Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_GOPR_2_20230215T014302_20230215T014959_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  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_20230215T031532_20230215T031955_C001	CS OFFE SIR GOPR 7 202302151015427 202302151020441 C001		
LS OFFE SIR GOPR / 20/30/15103153/ 20/30/151031955 C001	CS_OFFL_SIR_GOPR_2_20230215T023212_20230215T023412_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	U.S. OFFI. SIR (30PR / 202302151031532 202302151031955 C.001		

CS_OFFL_SIR_GOPR_2_20230215T032243_20230215T032339_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_20230215T032433_20230215T032853_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_20230215T040759_20230215T041343_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_20230215T050229_20230215T050544_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_20230215T050544_20230215T050903_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_20230215T051349_20230215T051751_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_20230215T062051_20230215T062736_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_20230215T062738_20230215T062803_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_20230215T065407_20230215T065622_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_20230215T081942_20230215T082202_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_20230215T082218_20230215T082317_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_20230215T082350_20230215T082820_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_20230215T095752_20230215T100031_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_20230215T100040_20230215T101028_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_20230215T104821_20230215T105041_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_20230215T113436_20230215T113802_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_20230215T114144_20230215T114931_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_20230215T115105_20230215T115112_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_20230215T131821_20230215T132056_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_20230215T132203_20230215T132932_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_20230215T150121_20230215T150834_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_20230215T155635_20230215T155820_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_20230215T161602_20230215T161816_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_20230215T163430_20230215T163739_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_20230215T164036_20230215T164747_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_20230215T170707_20230215T170908_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_20230215T174122_20230215T174429_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_20230215T180707_20230215T180723_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_20230215T181920_20230215T182512_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_20230215T195743_20230215T200618_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_20230215T213437_20230215T214217_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_20230215T214426_20230215T214507_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_20230215T215143_20230215T215232_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_20230215T231201_20230215T231236_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_20230215T231411_20230215T232032_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_20230215T232032_20230215T232342_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_20230215T233440_20230215T233517_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG 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: 195

### 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: 64

### 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: 156

## 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: 0

### **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:

## 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:

### 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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220230214T231956_20230215T000935_C002	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_GOP_220230215T000935_20230215T005911_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_GOP_220230215T005911_20230215T014850_C001	Tide (GOT) Total Geocentric Ocean	(solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height
CS_OFFL_SIR_GOP_220230215T014850_20230215T023826_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_GOP_220230215T023826_20230215T032804_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_GOP_220230215T032804_20230215T041740_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_GOP_220230215T041740_20230215T050719_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_GOP_220230215T050719_20230215T055655_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_GOP_220230215T055655_20230215T064634_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_GOP_220230215T064634_20230215T073610_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_GOP_220230215T073610_20230215T082548_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_GOP_220230215T082548_20230215T091525_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_GOP_220230215T091525_20230215T100503_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_GOP_220230215T100503_20230215T105439_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_GOP_220230215T105439_20230215T114418_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_GOP_220230215T114418_20230215T123354_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_GOP_220230215T123354_20230215T132333_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_GOP_220230215T132333_20230215T141309_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_GOP_220230215T141309_20230215T150247_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_GOP_220230215T150247_20230215T155223_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_GOP_220230215T155223_20230215T164202_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_GOP_220230215T164202_20230215T173138_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_GOP_220230215T173138_20230215T182117_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_GOP_220230215T182117_20230215T191053_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_GOP_220230215T191053_20230215T200031_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_GOP_220230215T200031_20230215T205008_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_GOP_220230215T205008_20230215T213946_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_GOP_220230215T213946_20230215T222922_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_GOP_220230215T222922_20230215T231901_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_GOP_220230215T231901_20230216T000837_C002	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

#### **6.5 P2P Measurement Confidence Data Check**

CryoSat P2P data includes a measurement confidence flag for each 20 Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

0

### 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.

Number of products with errors: 29

#### 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: 30

#### 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: 28

#### 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: 30

### 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	201	201	5	196	0
SIR_GOPR1B	126	126	0	126	0
SIR_GOPN1B	108	108	1	107	0
SIR_GOPM_2	201	201	153	48	0
SIR_GOPR_2	126	126	44	80	2
SIR_GOPN_2	108	108	40	68	0
SIR GOP P2P	29	29	0	27	2

### 7.1 QCC Errors

**Number of QCC reports with errors:** 

4

Total number of occurrences of each error

<b>Product Type</b>	RLOBOPNCDF	RL	RL	RLOBOPNCDF	RL	RL	-	-	•	-	-
SIR_GOPR_2	2	1	2	2	1	2					
•											
<b>Product Type</b>	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_GOP_2_	2	2	2	2							

Test 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

2205

Total number of occurrences of each warning

		Total number of occurrences of each warning								
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD			
SIR_GOPM1B	196	0	0	0	0	0	0			
SIR_GOPM_2	0	0	35	38	0	37	0			
SIR_GOPN1B	105	0	0	0	0	0	0			
SIR_GOPN_2	0	0	9	38	3	29	34			
SIR_GOPR1B	123	0	0	0	0	0	0			
SIR GOPR 2	0	2	30	42	0	29	29			

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCI	RPEPOPFDPLRMSINNCDI	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	31	0	30	0	0	0	0
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	20	0	0	0	19	0	38
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	17	1	0	42	0	48	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	6	26	0	7
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	0	0	29	18	49	54	32
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	0	40	0	3	64	39	10

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	33	0	4	0	0	0	0
SIR_GOPN1B	0	0	0	0	0	53	2
SIR_GOPN_2	28	28	11	0	0	0	0
SIR_GOPR1B	0	0	0	0	0	126	10
SIR_GOPR_2	31	41	3	1	9	0	0

Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_GOP_2_	16	27	29	3	28		28

Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCDI	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_GOP_2_	1	17	7/	21	21	29	17

Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-
SIR_GOP_2	25	28	18	14	29		

BCSHNCDF BurstCounterStep20HzNetCDF The burst counter should be one higher with regard to the previous burst counter should be an ehigher with regard to the previous burst counter should be an ehigher with regard to the previous burst counter should be an ehigher with regard to the previous burst counter should be a missing value for surface type 0 only for latitudes between -70 and 70 degree Missing Value infoceanExcludingPoiarNetCDF The value should not be a missing value for surface type 0 only for latitudes between -70 and 70 degree Missing Value infoceanExcludingPoiarNetCDF The value should not be a missing value for surface type 0 only for latitudes between -70 and 70 degree Missing Value infoceanExcludingPoiarNetCDF The value should not be a missing value for surface type 0 only for latitudes between -70 and 70 degree Missing Value infoceanExcludingPoiarNetCDF The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The backscatter sigms area should be between 700 and 7500 (or missing) for surface type - ocean for I between 70 and 70 degrees The Position For and 70 degrees The Position For The Posi	ees
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MVIOEPNCDF  MissingValueIntOceanExcludingPolarNetCDF  The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degree  The value should not be a 'missing value' for surface type 0 only  The value should not be a 'missing value' for surface type 0 only  The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for I between -70 and 70 degrees  RBSZOPOEPFDLRM  RangeBackscatterSigmaZeroOPOceanExcludingPolarP2PLRMNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RNELPOTONCDF  RangePeakinessExcludingPolarOPFD2PLRMNetCDF  RPEPOPFDLRMNCDF  RangePeakinessExcludingPolarOPFD2PLRMNetCDF  RPEPOPFDLRMNCDF  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF  RPEPOPFDLRMSAR  NCDF  RPEPOPFDLRMSAR  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF  RPEPOPFDSINNCDF  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF  RPEPOPFDSINNCDF  RangePeakinessExcludingPolarOPFD2SARNetCDF  RPEPOPFDRINNCDF  RangePeakinessExcludingPolarOPFD2SINNetCDF  RPEPOPSINNCDF  RangePeakinessExcludingPolarOPFD2SINNetCDF  RPEPOPSINNCDF  RangePeakinessExcludingPolarOPSARNetCDF  RPEPOPSINNCDF  RangePeakinessExcludingPolarOPSARNetCDF  RPEPOPSINNCDF  RangePeakinessExcludingPolarOPSARNetCDF  Repeakiness should be between 0 and 40000 (or missing) for surface type = ocean for latitudes between and 70 degrees  RPEPOPSINNCDF  Ra	
MVIONCDF  RBSZOPOEPFDNCDF  RBSZOPOEPNCDF  RBSZOPOEP	es
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NCDF RPEPOPFDLRMSINN CDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF Respectively and 70 degrees The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between 40 degrees Respectively and 70 degrees The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between 40 degrees The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between 40 degrees The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between 40 degrees The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between 40 degrees	en -70
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RPEPOPSARNODF RangePeakinessExcludingPolarOPSARNetOF and 70 degrees  RPEPOPSINNCDF RangePeakinessExcludingPolarOPSINNetCDF  The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between 10 degrees and 10	en -70
and 70 degrees	en -70
RSSBCONCDF RangeSeaStateBiasCorrectionOceanNetCDF The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocea	en -70
	an
RSSHAOFDNCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type ocean	e =
RSSHAOFDPLRMNCD RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF  The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type ocean	e =
RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type ocean	e =
RSWHOEPFDNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocea latitudes between -70 and 70 degrees	an for
RSWHOEPFDPLRMNC RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF  The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocea latitudes between -70 and 70 degrees	an for
RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocea latitudes between -70 and 70 degrees	an for
SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Start_v2_NetCDF Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)	
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	

# 7.3 Missing QCC Reports