

QA4EO Daily Report for GOP data:

<u>03/02/2022</u>

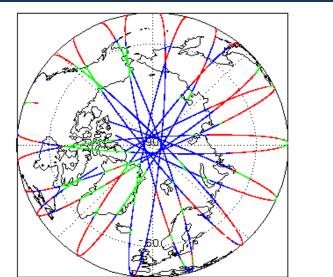
IDEAS-QAHEO

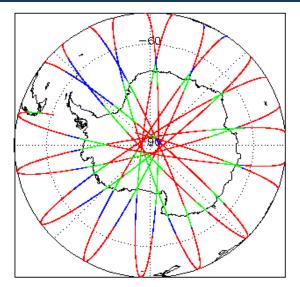
	07 Mar 2022	Check	L1 & L2	P2P
Report Production: 07-Mar-2022		Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	Omer Batt Oan an Drawnan	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor used.	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Geophysical Ocean Products (GOP)	Product Format Check	Nominal	Nominal
L1B, L2 & P2P Science Data	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 and 5.5	See Section 6.5
		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, 7.2 and 7.3

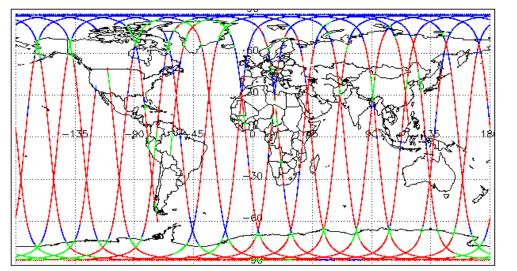
1. Overview

Mission / Instrument News		
02-Feb-2022	None	
03-Feb-2022	None	
04-Feb-2022	Nothing planned	













3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

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

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	d SPH in order to identify any incons	sistencies and/or errors raised by the ground-segment processing chain.
L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1I OSARIn chains. A modification is required in the next release.	B GOPR and GOPN products becau	use the I1b_processing_quality_hr field is not correctly configured in the OSAR and
Number of products with errors: 0		
4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre	e-determined baseline and also to ch	heck the validity of Auxiliary Data Files is correct
Number of products with errors: 0		nock the valuaty of Auxiliary Data Files is context.
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement recor	d. The bit value of this flag indicates	s any problems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag for each measurer	nent record. The bit value of this flag	g indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for GOPR proc		
Number of products with errors: 1	g	······································
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Product	Test Failed	Description There is an error in the scaling of the L1B waveform for one or more
CS_OFFL_SIR_GOPM1B_20220203T202551_20220203T202725_C001	Power scaling error	records
4.6 L1B Waveform Group Data Check		
	. The bit set of this flow in disease	
CryoSat L1B data includes a waveform data flag for each measurement record	-	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: 15		
Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20220203T005102_20220203T010537_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20220203T020754_20220203T020816_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20220203T070824_20220203T071652_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220203T020254_20220203T020754_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220203T083351_20220203T083643_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220203T164501_20220203T164901_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220203T210308_20220203T210825_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T011845_20220203T011913_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T051144_20220203T051332_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T051707_20220203T052517_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T064242_20220203T064644_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T082232_20220203T082905_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T083643_20220203T084428_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T114706_20220203T114905_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220203T133328_20220203T133849_C001	Loss of Echo	The tracking echo is missing for one or more records
5. G(OP Level 2 Data Qual	ity Check
5.1 L2 Product Format Check		
Each product, retrieved and unpacked from the science server, is checked to a	ensure it consists of both an XML he	eader file (.HDR) and a NetCDF product file (.nc).
Number of products with errors: 0		
5.2 L2 Product Header Analysis		
•		·····
For all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any incons	sistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors:

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).

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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.

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20220203T020754_20220203T020816_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_GOPM_2_20220203T050803_20220203T050916_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20220203T064644_20220203T064654_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20220203T152125_20220203T152205_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_20220203T002340_20220203T002444_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T010641_20220203T010834_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_20220203T011657_20220203T011845_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_20220203T020254_20220203T020754_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T042737_20220203T042942_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_GOPN_2_20220203T060531_20220203T060851_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T061413_20220203T061532_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_20220203T074425_20220203T074746_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T075307_20220203T075432_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_20220203T083351_20220203T083643_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T092057_20220203T092255_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_20220203T093131_20220203T093305_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T101443_20220203T101544_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T110901_20220203T111108_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T123917_20220203T124104_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_20220203T125614_20220203T125825_C001	Mean Sea Surface (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOPN_2_20220203T132917_20220203T133328_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T142843_20220203T143046_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_20220203T164501_20220203T164901_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_20220203T173759_20220203T173924_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_20220203T174714_20220203T174827_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T191728_20220203T191854_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_20220203T192405_20220203T192708_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T205746_20220203T210047_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_20220203T210308_20220203T210825_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T215406_20220203T215813_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T223746_20220203T224021_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T231609_20220203T231944_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_20220203T233257_20220203T233412_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20220203T233601_20220203T233835_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPR_2_20220203T001711_20220203T001754_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_20220203T001803_20220203T001844_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_20220203T001914_20220203T002107_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_20220203T002107_20220203T002340_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_20220203T003249_20220203T003358_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_20220203T015546_20220203T015652_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_GOPR_2_20220203T015653_20220203T020254_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_20220203T033808_20220203T034316_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_20220203T050618_20220203T050712_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_20220203T051144_20220203T051332_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_20220203T051707_20220203T052517_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_20220203T065553_20220203T070421_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_20220203T083643_20220203T084428_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_20220203T101544_20220203T102128_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_20220203T115459_20220203T115646_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_20220203T115646_20220203T120143_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_20220203T133328_20220203T133849_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_20220203T151151_20220203T152125_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_20220203T164901_20220203T165635_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_20220203T182807_20220203T183456_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_20220203T183456_20220203T183803_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_20220203T200642_20220203T201356_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_20220203T201356_20220203T201602_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_20220203T214639_20220203T214735_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_20220203T214825_20220203T215252_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_20220203T215252_20220203T215406_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_20220203T232625_20220203T233123_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_20220203T233123_20220203T233257_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.

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Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20220203T202551_20220203T202725_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

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.

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Number of products with errors	s:
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Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20220202T235650_20220203T000625_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_20220203T003435_20220203T004157_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_20220203T004203_20220203T004512_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_20220203T005102_20220203T010537_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_20220203T010834_20220203T011657_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_20220203T011913_20220203T013626_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_20220203T013653_20220203T014151_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_20220203T021803_20220203T022146_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_20220203T022149_20220203T024507_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_20220203T025019_20220203T025516_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_20220203T030045_20220203T032352_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_20220203T035646_20220203T042253_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_20220203T042942_20220203T043541_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_20220203T043713_20220203T050602_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_20220203T051332_20220203T051530_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_20220203T052834_20220203T060237_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_20220203T060851_20220203T061413_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_20220203T061612_20220203T062208_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_20220203T064644_20220203T064654_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_20220203T065211_20220203T065416_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_20220203T0655500_20220203T065553_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_20220203T070824_20220203T071652_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_20220203T071938_20220203T074157_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_30220203T074749_20220203T07485_C001 OCGG Allineter Range Quality, OCGG The OCGG Allineter Range and Backscatter Quality Flags have be bordered to rank or now records cs_OFFL_SIR_GOPM_2_30220203T075923_022003T075921_C001 OCGG Allineter Range Quality, OCGG The OCGG Allineter Range and Backscatter Quality Flags have be bordered to rank to records cs_OFFL_SIR_GOPM_2_30220203T075923_022003T075923_022003T076921_C001 OCGG Allineter Range SBIA_SWH The OCGG Allineter Range SBIA_SWH cs_OFFL_SIR_GOPM_2_30220203T076923_022003T080591_C001 Ocean Allineter Range SBIA_SWH The Ocean Allineter Range SBIA_SWH cs_OFFL_SIR_GOPM_2_30220203T08059_022003T080700_000_0001 Ocean Allineter Range SBIA_SWH The Ocean Allineter Range SBIA_SWH cs_OFFL_SIR_GOPM_2_30220203T080700_000_0001 Ocean Allineter Range SBIA_SWH The Ocean Allineter Range SBIA_SWH cs_OFFL_SIR_GOPM_2_30220203T080700_000_0001 Ocean Allineter Range SBIA_SWH The Ocean Allineter Range SBIA_SWH cs_OFFL_SIR_GOPM_2_30220203T080700_0000 OCGG Allineter Range SBIA_SWH The OCOOA Allineter Range and Backscatter Cuality cs_OFFL_SIR_GOPM_2_30220203T080700_0001 OCGG Allineter Range SBIA_SWH The OCOOA Allineter Range and Backscatter Cuality Flags have be for one or nore records cs_OFFL_SIR_GOPM_2_30220203T080260_C001 maskscatter Cuality Cocean Allineter Range and Backscatter Cuality Flags have be
City PTL_SR_COPML_2_202200310480_0122001 Backstatter Quality for one or more records CS_OFFL_SR_COPML_2_202200310512_010112_0101 Ocean Altereter Range, SSHA, SWH and Backstatter Quality, OCOG Altereter Range and Backstatter Quality, COG Altereter Range, SSHA, SWH and Backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range, SSHA, SWH and backstatter Quality, Flags have and the COG Altereter Range ASHA, SWH and Backstatter Quality, Flags have Altereter Range, SSHA, SWH and backstatter Quality, F
CS_OFFL_SIR_GOPM_2_20220203T080855_20220203T080812_C001 and Backscatter Quality COCG Allineter Range and Backscatter Quality Flags have distributer Range and Backscatter Quality end to roco or more records CS_OFFL_SIR_GOPM_2_20220203T08256_20220203T08254_C001 Cocen Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have distributer on or more records CS_OFFL_SIR_GOPM_2_20220203T08256_20220203T08256_0220203T08256_0220203T08256_0220203T08256_0220203T08256_0220203T08360_C001 CoCGA Altimeter Range Quality, OCCG Backscatter Quality The OCOGA Altimeter Range and Backscatter Quality Flags have be for no or more records CS_OFFL_SIR_GOPM_2_20220203T08256_0220203T08360_C001 Cocen Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality and Backscatter Quality The OCOGA Altimeter Range and Backscatter Quality Flags have be for on or more records CS_OFFL_SIR_GOPM_2_20220203T083658_0220203T083603_C001 Cocen Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality The OCOGA Altimeter Range and Backscatter Quality and the COCGA Altimeter Range and Backscatter Quality and Backscatter Quality The OCOGA Altimeter Range and Backscatter Quality and the COCGA Altimeter Range and Backscatter Quality and Backscatter Quality The OCOGA Altimeter Ran
CS_OFFL_SIR_GOPM_2_2022030T080959_702001 and Backsatter Quality. COCG Antimeter Range and Backsatter Quality is to for one or more records. CS_OFFL_SIR_GOPM_2_20220201064703_20220203T092040_0001 Cocen Altimeter Range SIAL SWH Attimeter Range and Backsatter Quality. COCG Attimeter Range and Backsatter Quality. COCG Attimeter Range and Backsatter Quality. COCG Backsatter Quality. COCG Attimeter Range and Backsatter Quality. Flags have be for one or more records. CS_OFFL_SIR_GOPM_2_20220203T092256_20220203T092754_C001 COCG Attimeter Range Quality. COCG Backsatter Quality. COCG Attimeter Range and Backsatter Quality. Flags have be for one or more records. The OCCG Attimeter Range and Backsatter Quality. Flags have be for one or more records. CS_OFFL_SIR_GOPM_2_20220203T092563_0220203T093580_C001 OCCG Attimeter Range SIAL SWH and Backsatter Quality. COCG Attimeter Range and Backsatter Quality. Flags have be for one or more records. The OCCG Attimeter Range. SIAL SWH and Backscatter Quality Flags have Attimeter Range and Backscatter Quality. Flags have be for one or more records. CS_OFFL_SIR_GOPM_2_20220203T093583_20220203T010107_C001 Occen Altimeter Range SIAL SWH and Backscatter Quality. COCG Attimeter Range and Backscatter Quality. Flags have be for one or more records. CS_OFFL_SIR_GOPM_2_20220203T101180_20220203T101037_C001 Occen Altimeter Range SIAL SWH and Backscatter Quality. COCG Attimeter Range and Backscatter Quality Flags have Attimeter Range and Backscatter Quality. Flags have be for one or more records. CS_OFFL_SIR_GOPM_2_20220203T101037_20220203T101037_C0201 Occen Altimeter Range.SIAL SWH and Backscatter Quality. COCG Attimet
CS_OFFL_SIR_GOPM_2_2022003T08/2763_20220203T08/2764_C001 and Backscatter Quality, COCG Allimeter Range and Backscatter Quality Flags have Allimeter Range and Backscatter Quality, SOCG Backscatter Quality The OCCG Allimeter Range and Backscatter Quality Flags have and sockscatter Quality CS_OFFL_SIR_GOPM_2_20220203T08/255_20220203T092764_C001 OCCG Allimeter Range Quality, OCCG Backscatter Quality The OCCG Allimeter Range and Backscatter Quality Flags have for one or more records CS_OFFL_SIR_GOPM_2_20220203T08/2614_20220203T0932614_20220203T093263_C001 OCCG Allimeter Range Quality, OCCG Backscatter Quality The OCCG Allimeter Range and Backscatter Quality Flags have Allimeter Range and Backscatter Quality The OCCG Allimeter Range and Backscatter Quality and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T093263_20220203T093053_20220203T101007_C001 Occean Allimeter Range and Backscatter Quality The OCCG Allimeter Range and Backscatter Quality The OCCG Allimeter Range and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T10130_20220203T101243_C001 Ocean Allimeter Range and Backscatter Quality The OCCG Allimeter Range and Backscatter Quality The OCEAN Allimeter Range, SSH, SWH and Backscatter Quality Flags have and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T1013037_20220203T1013034_C001 Ocean Allimeter Range, SSH, SWH and Backscatter Quality Flags have Allimeter Range and Backscatter Quality The OCEAN Allimeter Range, SSH, SWH and Backscatter Quality Flags have Allimeter Range and Backscatter Quality The OCEAN Allimeter Range, SSH, SWH and Backscatter Quality Flags have Allimeter R
CS_OFFL_SIR_GOPM_2_20220203T092814_20220203T093131_C001 Backscatter Quality for one or more records CS_OFFL_SIR_GOPM_2_20220203T092814_20220203T093131_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T093558_20220203T093603_C001 OCERA Itimeter Range, SSHA, SWH and Backscatter Quality, Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have and Backscatter Quality, COCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have and Backscatter Quality, COCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have and Dackscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T10130_20220203T101007_C001 OCEA Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T10130_20220203T101203_C001 OCEA Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have Altimeter Range and Backscatter Quality, Flags have and backscatter Quality, Flags have and backscatter Quality, Flags have, be for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103034_C001 OCEAA Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have Altimeter Range and Backscatter Quality, Flags have Altin the OCOCA Altimeter Range, SSHA, SWH and Backscatter Quality,
CS_OFFL_SIR_GOPM_2_20220203108314_20220203109363_0001 Backscatter Quality for one or more records CS_OFFL_SIR_GOPM_2_20220203T093556_20220203T093603_0001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, DCOG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have Altimeter Range, SSHA, SWH and Backscatter Quality, SCOG CS_OFFL_SIR_GOPM_2_20220203T093853_20220203T101007_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG CS_OFFL_SIR_GOPM_2_20220203T101130_20220203T101243_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T1012926_20220203T101243_C001 OCEAN Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T102926_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103037_20220203T10334_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T104327_020
CS_OFFL_SIR_GOPM_2_20220203T093569_20220203T101007_C001 and Backscatter Quality COCG and the OCGG Altimeter Range and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T093863_20220203T101007_C001 Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T10130_20220203T101243_C001 DCOG Altimeter Range and Backscatter Quality The OCean Altimeter Range and Backscatter Quality Flags have Altimeter Range and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T101243_C001 DCOG Altimeter Range and Backscatter Quality The OCean Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T10226_20220203T103034_C001 Altimeter Range and Backscatter Quality The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA
CS_OFFL_SIR_GOPM_2_20220203T101007_C001 and Backscatter Quality Attimeter Range and Backscatter Quality attimeter Range and Backscatter Quality set for one or more records CS_OFFL_SIR_GOPM_2_20220203T101130_20220203T101243_C001 OCGG Altimeter Range Quality, OCGG The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T1012926_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103037_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103735_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T106553_C001 Ocean Altimeter Range, SSHA, SWH The OCGG Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T110422_202203T110653_C001 Ocean Altimeter Range Quality, OCCG The OCGG Altimeter Range and Backscatter Quality Flags have be GS_OFFL_SIR_GOPM_
CS_OFFL_SIR_GOPM_2_20220203T10102926_20220203T103034_C001 Backscatter Quality for one or more records CS_OFFL_SIR_GOPM_2_20220203T102926_20220203T103034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103037_20220203T103735_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Inderer Range, SSHA, SWH and Backscatter Quality, Inderer Range, and Backscatter Quality, Inderer Range, SSHA, SWH and Backscatter Quality, Inderer Range, SSHA, SWH and Backscatter Quality, Inderer Range, SSHA, SWH and Backscatter Quality, Inderer Range, and Backscatter Quality, Inderer Range, and Backscat
CS_OFFL_SIR_GOPM_2_20220203T102926_20220203T103034_C001 and Backscatter Quality, OCOG and the COCG Altimeter Range and Backscatter Quality set for one or more records CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103735_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 Ocean Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 OCGG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110653_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter
CS_OFFL_SIR_GOPM_2_20220203T103037_20220203T103735_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality set for one or more records CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Fine Ocean Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001 Ocean Altimeter Range Quality, OCOG Backscatter Quality The Ocean Altimeter Range and Backscatter Quality Flags have set for one or more records CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110
CS_OFFL_SIR_GOPM_2_20220203T104216_20220203T104324_C001 and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality Flags have set for one or more records CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T111646_20220203T113034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG
CS_OFFL_SIR_GOPM_2_20220203T104327_20220203T105953_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110653_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCCOG Altimeter Range, Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records
CS_OFFL_SIR_GOPM_2_20220203T110142_20220203T110655_C001 Backscatter Quality for one or more records CS_OFFL_SIR_GOPM_2_20220203T110729_20220203T110901_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_GOPM_2_20220203T110646_20220203T113034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and Backscatter Quality for one or more records
CS_OFFL_SIR_GOPM_2_20220203T1110729_20220203T110901_C001 Backscatter Quality for one or more records CS_OFFL_SIR_GOPM_2_20220203T111646_20220203T113034_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality
CS_OFFL_SIR_GOPM_2_20220203T111646_20220203T113034_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have Altimeter Range and Backscatter Quality set for one or more records
Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality
CS_OFFL_SIR_GOPM_2_20220203T113303_20220203T114423_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have Altimeter Range and Backscatter Quality flags have been for one or more records.
CS_OFFL_SIR_GOPM_2_20220203T121218_20220203T122236_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality flags have been for one or more records
CS_OFFL_SIR_GOPM_2_20220203T122416_20220203T123848_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and the OCOG Altimeter Range and Backscatter Quality Flags have been been been been been been been be
CS_OFFL_SIR_GOPM_2_20220203T124612_20220203T124623_C001 OCOG Altimeter Range Quality, OCOG Itimeter Range and Backscatter Quality Flags have be for one or more records
CS_OFFL_SIR_GOPM_2_20220203T124644_20220203T124746_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records
CS_OFFL_SIR_GOPM_2_20220203T125440_20220203T125614_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_GOPM_2_20220203T125825_20220203T130839_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_GOPM_2_20220203T131106_20220203T131626_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_GOPM_2_20220203T131909_20220203T132605_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality I set for one or more records

CS_OFFL_SIR_GOPM_2_20220203T134454_20220203T134546_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_20220203T135342_20220203T135409_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_20220203T135515_20220203T141818_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_20220203T142141_20220203T142522_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_20220203T142544_20220203T142843_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_20220203T143136_20220203T145943_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_20220203T145945_20220203T150022_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_20220203T153247_20220203T155746_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_20220203T155924_20220203T160437_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_20220203T161148_20220203T164501_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_20220203T171340_20220203T171516_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_20220203T173114_20220203T173716_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_20220203T173924_20220203T174512_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_20220203T175104_20220203T182401_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_20220203T184548_20220203T184640_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_20220203T190015_20220203T190203_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_20220203T190252_20220203T191639_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_20220203T191854_20220203T192405_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_20220203T192947_20220203T195218_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_20220203T195502_20220203T200419_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_20220203T203456_20220203T205429_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_20220203T210047_20220203T210308_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_20220203T211002_20220203T214149_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_20220203T215856_20220203T221759_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_20220203T221821_20220203T223117_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_20220203T224357_20220203T224720_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
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CS_OFFL_SIR_GOPM_2_20220203T224854_20220203T230441_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_20220203T230643_20220203T231609_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_20220203T233412_20220203T233601_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_20220203T233835_20220203T234058_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_20220203T234311_20220203T235523_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_20220203T051659_20220203T051707_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_20220203T110901_20220203T111108_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_20220203T160811_20220203T160937_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_20220203T191728_20220203T191854_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_20220203T050607_20220203T050615_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_20220203T050618_20220203T050712_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_20220203T092040_20220203T092057_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20220203T110706_20220203T110712_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_20220203T200419_20220203T200528_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_20220203T223117_20220203T223746_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_GOPR_2_20220203T234058_20220203T234311_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (20 Hz PLRM)

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

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

> OCOG Altimeter Range and Backscatter PLRM Quality Flags: These flags are currently set for occasional records over continental ice.

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Product	Test Failed	Description
	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
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG 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 Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	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_20220203T033554_20220203T033630_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_20220203T042541_20220203T042701_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_20220203T060531_20220203T060851_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_20220203T061413_20220203T061532_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_20220203T063432_20220203T063455_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_20220203T070421_20220203T070737_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_20220203T083351_20220203T083643_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_20220203T093131_20220203T093305_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_20220203T110901_20220203T111108_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_20220203T114905_20220203T115057_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_20220203T120958_20220203T121218_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_20220203T125614_20220203T125825_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_20220203T130839_20220203T131106_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_20220203T132917_20220203T133328_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_20220203T134827_20220203T134856_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_20220203T134943_20220203T135342_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_20220203T141830_20220203T142141_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_20220203T150022_20220203T150309_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_20220203T153135_20220203T153150_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_20220203T155746_20220203T155924_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_20220203T182556_20220203T182807_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_20220203T203320_20220203T203411_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_20220203T205746_20220203T210047_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_20220203T215406_20220203T215813_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_20220203T224217_20220203T224357_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_20220203T231609_20220203T231944_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_20220203T235523_20220203T235908_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_20220203T235936_20220204T000004_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_20220203T001711_20220203T001754_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_20220203T001803_20220203T001844_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_20220203T002107_20220203T002340_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_20220203T002608_20220203T002759_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_20220203T003249_20220203T003358_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_20220203T011845_20220203T011913_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_20220203T015653_20220203T020254_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_20220203T021620_20220203T021803_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_20220203T033630_20220203T033746_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_20220203T033808_20220203T034316_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Attimeter 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_20220203T042253_20220203T042541_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_20220203T051707_20220203T052517_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_20220203T064242_20220203T064644_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_20220203T064856_20220203T065059_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_20220203T065553_20220203T070421_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_20220203T083643_20220203T084428_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_20220203T084559_20220203T084622_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_20220203T101544_20220203T102128_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_20220203T102839_20220203T102926_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_20220203T111108_20220203T111646_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_20220203T113034_20220203T113303_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_20220203T114423_20220203T114605_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_20220203T114706_20220203T114905_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_20220203T115057_20220203T115244_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

5.8 L2 Ocean Retracking Quality Check L2 Retracking Flags (20 Hz)		
Currently, there are several common flags raised in the Level 2 products, > 1 Hz and 1 Hz Ocean SSHA Quality Flags: These flags are currently set fo Number of products with errors: 196		ad.
L2 Quality Flags (1 Hz & 1 Hz PLRM)		
CS_OFFL_SIR_GOPR_2_20220203T234058_20220203T234311_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 bee set for one or more records
CS_OFFL_SIR_GOPR_2_20220203T232625_20220203T233123_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_20220203T214825_20220203T215252_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_20220203T214639_20220203T214735_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_GOPR_2_20220203T201825_20220203T202551_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_GOPR_2_20220203T200642_20220203T201356_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 bee set for one or more records
CS_OFFL_SIR_GOPR_2_20220203T184641_20220203T185001_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_GOPR_2_20220203T184006_20220203T184344_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_20220203T182807_20220203T183456_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_20220203T164901_20220203T165635_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_20220203T151151_20220203T152125_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_20220203T133914_20220203T134006_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_GOPR_2_20220203T133328_20220203T133849_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 bee set for one or more records
S_OFFL_SIR_GOPR_2_20220203T115646_20220203T120143_C001	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 bee set for one or more records

Number of products with errors:

L2 Retracking Flags (20 Hz PLRM)

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

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

67

139

0

Number of products with errors:

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

6.1 P2P Product Format Check

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

Number of products with errors:

6.2 P2P Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 0

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

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).

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.

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Product	Test Failed	Description
CS_OFFL_SIR_GOP_220220202T233236_20220203T002211_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_220220203T002211_20220203T011150_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_220220203T011150_20220203T020126_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_220220203T020126_20220203T025105_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_220220203T025105_20220203T034040_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_220220203T034040_20220203T043020_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_220220203T043020_20220203T051955_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_220220203T051955_20220203T060935_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_220220203T060935_20220203T065910_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_220220203T065910_20220203T074849_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_220220203T074849_20220203T083824_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_220220203T083824_20220203T092804_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_220220203T092804_20220203T101739_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_220220203T101739_20220203T110718_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_220220203T110718_20220203T115654_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_220220203T115654_20220203T124633_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_220220203T124633_20220203T133608_C001		There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_220220203T133608_20220203T142548_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_220220203T142548_20220203T151523_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_220220203T151523_20220203T160503_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_220220203T160503_20220203T165438_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_220220203T165438_20220203T174417_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_220220203T174417_20220203T183353_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_220220203T183353_20220203T192332_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_220220203T192332_20220203T201307_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_220220203T201307_20220203T210247_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_220220203T210247_20220203T215222_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_2_20220203T215222_20220203T224201_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_220220203T224201_202	220203T233137_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_2_20220203T233137_202	220204T002116_C002	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
6.5 P2P Measurement Confidence	Data Check		
		The bit velue of this flow in	
CryoSat P2P data includes a measurement confid Number of products with errors:	1	easurement record. The bit value of this hag in	licates any problems when set.
-			
Product		Test Failed	Description
CS_OFFL_SIR_GOP_220220203T201307_202	220203T210247_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more record
6.6 P2P Measurement Quality Flag	g Check		
P2P Quality Flags (20 Hz)			
CryoSat P2P data includes Quality Flags for each	20 Hz, 20 Hz PLRM and 1 H	Hz measurement record, copied from the corre	sponding L2 products.
Since the P2P Quality Flags are copied directly	r from the L2 Quality Flags	s, please see Section 5.6 for the full list of p	roducts affected.
Number of products with errors:	30		
P2P Quality Flags (20 Hz PLRM)			
Since the P2P Quality Flags are copied directly	r from the L2 Quality Flags	s, please see Section 5.6 for the full list of p	roducts affected.
Number of products with errors:	28		
P2P Quality Flags (1 Hz & 1 Hz PLRM	T)		
Since the P2P Quality Flags are copied directly	r from the L2 Quality Flags	s, please see Section 5.6 for the full list of p	roducts 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 qu			• •
Ocean Retracking Quality Flag (PLRM): This fla	g is currently set for product	ts GOPR and GOPN products over sea ice, bu	t this is to be expected.
Number of products with errors:	29		
P2P Retracking Flags PLRM			
CryoSat L2 data includes an ocean retracking qua	lity flag for each 20 Hz PLR	M measurement record. The bit value of this fla	ag indicates any problems when set.
Ocean Retracking Quality Flag (PLRM): This fla	g is currently set for product	s GOPR and GOPN products over sea ice, bu	t 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	208	208	7	201	0
SIR_GOPR1B	124	124	0	124	0
SIR_GOPN1B	103	103	4	97	2
SIR_GOPM_2	208	208	150	58	0
SIR_GOPR_2	124	124	50	72	2
SIR_GOPN_2	101	101	46	55	0
SIR_GOP_P2P	29	29	0	27	2

7.1 QCC Errors

Number of QCC	C reports with er	rors:	6								
					Total number	of occurrences	of each error				
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	AISSOPOBHRNCI	-	-	-	-	-	-
SIR_GOPN1B	0	0	0	0	2						
SIR_GOPR_2	2	2	2	2	0						
										•	
Product Type	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_7	Latitude should be between -90E7 and 90E7		
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7		
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7		
RRTAISSOPOBHRNC	RangeRecordTAIStartStopOPOrBlankHRNetC	#N/A		

7.2 QCC Warnings

Number of QCC repo	rts with warnings	2138					
			Total r	umber of occurrences of	of each warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC
SIR_GOPM1B	201	0	0	0	0	0	0
SIR_GOPM_2	0	0	49	49	0	39	0
SIR_GOPN1B	98	0	0	0	0	0	0
SIR_GOPN_2	0	0	10	28	6	23	23
SIR_GOPR1B	120	0	0	0	0	0	0
SIR_GOPR_2	0	2	23	43	1	30	25
Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	ROLTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSAR		DIRPEPOPFDSARNCDF
SIR_GOPM1B	0	0	0	0	0	0	0

SIR_GOPM_2	28	1	1	41	0	0	0
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	12	1	0	0	0	14	0
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	11	1	0	0	42	0	48
Product Type	RPEPOPFDSINNCDF	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	0	33	0	0	7	31	0
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	30	0	0	23	13	36	46
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	0	0	40	0	5	59	29
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	5	42	0	5	0	0	0
			0	0	0	45	3
SIR_GOPN1B	0	0	0	U	•	40	
SIR_GOPN1B SIR_GOPN_2	0 26	0 28	28	16	0	0	0
		0 28 0	28 0	16 0	0 0	43 0 124	0 3
SIR_GOPN_2	26		0 28 0 46		0 0 3	0	0 3 0
SIR_GOPN_2 SIR_GOPR1B	26 0	0	0	0	-	0 124	-
SIR_GOPN_2 SIR_GOPR1B	26 0	0	0	0	-	0 124	0
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2	26 0 10	0 30	0 46	0 3	3	0 124 0	0
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2 Product Type	26 0 10 IOHHMOOR	0 30 MVIOEPFDNCDF	0 46 MVIOEPNCDF	0 3	3 RBSZOPOEPFDNCDF	0 124 0 RBSZOPOEPFDPLRMNCC	
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2 Product Type	26 0 10 IOHHMOOR	0 30 MVIOEPFDNCDF	0 46 MVIOEPNCDF	0 3 MVIONCDF 7	3 RBSZOPOEPFDNCDF	0 124 0 RBSZOPOEPFDPLRMNCC	
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2 Product Type SIR_GOP_2_	26 0 10 IOHHMOOR 11	0 30 MVIOEPFDNCDF 28	0 46 MVIOEPNCDF 29	0 3 MVIONCDF 7	3 RBSZOPOEPFDNCDF 28	0 124 0 RBSZOPOEPFDPLRMNCI 16	0 RBSZOPOEPNCDF 27
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2 Product Type SIR_GOP_2_ Product Type	26 0 10 10 10 11 11 RNELPOTONCDF	0 30 MVIOEPFDNCDF 28	0 46 29 RPEPOPFDPLRMSINNCD 17	0 3 MVIONCDF 7 RPEPOPFDSINNCDF 27	3 RBSZOPOEPFDNCDF 28 RPEPOPSINNCDF 22	0 124 0 RBSZOPOEPFDPLRMNCI 16 RSSBCONCDF	0 RBSZOPOEPNCDF 27 RSSHAOFDNCDF
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR_2 Product Type SIR_GOP_2_ Product Type	26 0 10 10 10 11 11 RNELPOTONCDF	0 30 MVIOEPFDNCDF 28	0 46 MVIOEPNCDF 29 RPEPOPFDPLRMSINNCD	0 3 MVIONCDF 7 RPEPOPFDSINNCDF	3 RBSZOPOEPFDNCDF 28 RPEPOPSINNCDF 22	0 124 0 RBSZOPOEPFDPLRMNCI 16 RSSBCONCDF	0 RBSZOPOEPNCDF 27 RSSHAOFDNCDF
SIR_GOPN_2 SIR_GOPR1B SIR_GOPR2 Product Type SIR_GOP_2_ Product Type SIR_GOP_2_	26 0 10 11 11 RNELPOTONCDF 3	0 30 MVIOEPFDNCDF 28 ROLTONCDF 1	0 46 29 RPEPOPFDPLRMSINNCD 17	0 3 MVIONCDF 7 RPEPOPFDSINNCDF 27	3 RBSZOPOEPFDNCDF 28 RPEPOPSINNCDF 22	0 124 0 RBSZOPOEPFDPLRMNCI 16 RSSBCONCDF 18	0 RBSZOPOEPNCDF 27 RSSHAOFDNCDF

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

7.3 Missing QCC Reports

Number of products with missing QCC reports:

1

L1B and L2 Product name

P2P Product name CS_OFFL_SIR_GOP_2_20220203T233137_20220204T002116_C002