

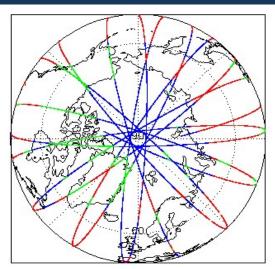
1. Overview

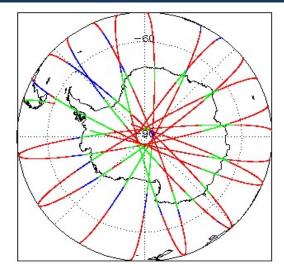
Report Production:	24-Mar-2022	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data	

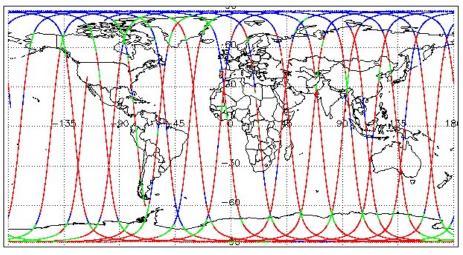
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6 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 and 7.2

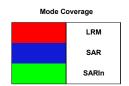
Mission / Instru	Mission / Instrument News	
21-Feb-2022	None	
22-Feb-2022	None	
23-Feb-2022	Nothing planned	

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A

4. GOP Level 1B Data Quality Check

4.1 L1B Product Format Check

4.2 L1B Product Header Analysis

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

L1B Processing Quality HR: The Ib_proc_flag_hr flag is currently set all L1B GOPR and GOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

4.3 L1B Auxilary Data File Usage Check

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

mber of products with errors:

4.4 L1B Auxiliary Correction Error Check

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

0

Number of products with errors:

4.5 L1B Measurement Confidence Data Check

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20220222T100926_20220222T102250_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_GOPM1B_20220222T132347_20220222T134915_C001		There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_GOPM1B_20220222T225030_20220222T225349_C001		There is an error in the scaling of the L1B waveform for one or more records

4.6 L1B Waveform Group Data Check

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20220222T092246_20220222T092953_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220222T000913_20220222T001101_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220222T153647_20220222T154111_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20220222T204630_20220222T205017_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T004936_20220222T005510_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T023026_20220222T023529_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T104248_20220222T104354_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T122555_20220222T123119_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T123128_20220222T123218_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20220222T205017_20220222T205105_C001	Loss of Echo	The tracking echo is missing for one or more records

5. GOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors: 0

5.2 L2 Product Header Analysis

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

Number of products with errors:

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).

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_GOPN_2_20220222T005510_20220222T010057_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_20220222T013833_20220222T013951_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_20220222T014747_20220222T015024_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_20220222T031753_20220222T031914_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_20220222T032803_20220222T032927_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_20220222T045743_20220222T050108_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_20220222T055626_20220222T055858_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_20220222T063648_20220222T064009_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_20220222T064526_20220222T064649_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_20220222T072629_20220222T072902_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), 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 (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_GOPN_2_20220222T082415_20220222T082533_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_20220222T090700_20220222T090805_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_20220222T100124_20220222T100324_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_20220222T122043_20220222T122555_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_20220222T132040_20220222T132258_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_20220222T135838_20220222T140418_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_20220222T153647_20220222T154111_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPN_2_20220222T163013_20220222T163137_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_20220222T194944_20220222T195250_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_20220222T195526_20220222T200037_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_20220222T204630_20220222T205017_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_20220222T213005_20220222T213239_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_20220222T222515_20220222T222632_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_20220222T222855_20220222T223133_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_GOPN_2_20220222T230504_20220222T231114_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_20220222T004936_20220222T005510_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_20220222T023026_20220222T023529_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_20220222T040725_20220222T041730_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_20220222T054740_20220222T055626_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_20220222T072902_20220222T073646_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_20220222T090805_20220222T091519_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_20220222T104720_20220222T105409_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_20220222T122555_20220222T123119_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_20220222T123128_20220222T123218_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_20220222T140418_20220222T140622_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_20220222T140622_20220222T141331_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_20220222T154111_20220222T154855_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_20220222T185900_20220222T190613_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_20220222T190613_20220222T190831_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_20220222T191200_20220222T191812_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPR_2_20220222T204038_20220222T204512_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_20220222T204512_20220222T204630_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_20220222T221844_20220222T222348_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_20220222T222348_20220222T222515_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20220222T100926_20220222T102250_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOPM_2_20220222T132347_20220222T134915_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOPM_2_20220222T225030_20220222T225349_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.

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20220222T000101_20220222T000913_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_20220222T001109_20220222T002730_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_20220222T003124_20220222T003603_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_20220222T011014_20220222T011402_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_20220222T011405_20220222T013722_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_20220222T013951_20220222T014154_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_20220222T014232_20220222T014747_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_20220222T015024_20220222T021541_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_20220222T024824_20220222T031604_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_20220222T032159_20220222T032803_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_20220222T032927_20220222T035745_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_20220222T042114_20220222T045516_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_20220222T050109_20220222T050635_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_20220222T050806_20220222T051426_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_20220222T060047_20220222T060913_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_20220222T061157_20220222T063452_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_20220222T064009_20220222T064113_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_20220222T064117_20220222T064526_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_20220222T064655_20220222T070701_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_20220222T071028_20220222T071437_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_20220222T073902_20220222T081251_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_20220222T082032_20220222T082414_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_20220222T082617_20220222T082851_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_20220222T083113_20220222T090242_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_20220222T090415_20220222T090659_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_20220222T091648_20220222T091651_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_20220222T091732_20220222T091733_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_20220222T092246_20220222T092953_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_20220222T093728_20220222T095219_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_20220222T095355_20220222T095911_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_20220222T100926_20220222T102250_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_20220222T102658_20220222T103706_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_20220222T110432_20220222T111310_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_20220222T111635_20220222T113130_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_20220222T113322_20220222T113823_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_20220222T113848_20220222T113858_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_20220222T115248_20220222T115926_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_20220222T120422_20220222T120843_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_20220222T121126_20220222T121715_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_20220222T124807_20220222T131041_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_20220222T131352_20220222T131741_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_20220222T131802_20220222T132039_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_20220222T132347_20220222T134915_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_20220222T142437_20220222T145010_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_20220222T145136_20220222T145656_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_20220222T150309_20220222T153647_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_20220222T160650_20220222T161957_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_20220222T162328_20220222T162958_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_20220222T163137_20220222T163628_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_20220222T184721_20220222T185655_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_20220222T190831_20220222T190900_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_20220222T191007_20220222T191200_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_20220222T192726_20220222T193332_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_20220222T193519_20220222T194846_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_20220222T195250_20220222T195526_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_20220222T200133_20220222T203217_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_20220222T205105_20220222T212303_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_20220222T213239_20220222T213434_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_20220222T213638_20220222T213939_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_20220222T214101_20220222T214511_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_20220222T214537_20220222T220956_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
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CS_OFFL_SIR_GOPM_2_20220222T222632_2022022T222855_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have be for one or more records OCG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records	peen set
CS_OFFL_SIR_GOPM_2_20220222T223555_20220222T224742_C001 and Backscatter Quality, OCOG Altimeter and the OCOG Altimeter Range and Backscatter Quality Flags have	
CS_OFFL_SIR_GOPM_2_20220222T230407_20220222T230504_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records	
CS_OFFL_SIR_GOPM_2_20220222T231412_20220222T231840_C001 OCOG Altimeter Range Quality, OCOG 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	peen set
CS_OFFL_SIR_GOPM_2_20220222T232032_2022022T233526_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_20220222T233705_20220222T233948_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_20220222T235158_20220222T235224_C001 OCOG Altimeter Range Quality, OCOG 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	peen set
CS_OFFL_SIR_GOPN_2_20220222T055626_20220222T055858_C001 OCOG Altimeter Range Quality, OCOG 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	peen set
CS_OFFL_SIR_GOPN_2_20220222T055915_20220222T060009_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_GOPN_2_20220222T113858_20220222T113901_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records	atter Quality Flags have been set
CS_OFFL_SIR_GOPN_2_20220222T124152_20220222T124551_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records	peen set
CS_OFFL_SIR_GOPR_2_20220222T191200_20220222T191812_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_GOPR_2_20220222T214512_20220222T214536_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality set for one or more records	
CS_OFFL_SIR_GOPR_2_20220222T234210_20220222T234415_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records	oeen set

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.

Product	Test Failed	Description
CS_OFFL_SIR_GOPN_2_20220222T000913_20220222T001101_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_20220222T005510_20220222T010057_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_20220222T045743_20220222T050108_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_20220222T050635_20220222T050752_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_20220222T064526_20220222T064649_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_20220222T070702_20220222T071028_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_20220222T072629_20220222T072902_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_20220222T082415_20220222T082533_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_20220222T100124_20220222T100324_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

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Ball Bellescare Dustly PLEA, CODD And B	CS_OFFL_SIR_GOPN_2_20220222T115926_20220222T120353_C001			
COLOR Backscater Quality COLOR Backscater Qual	CS_OFFL_SIR_GOPN_2_20220222T122043_20220222T122555_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
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De De Backsteine (Dually PLRIA, CODE) All Control of Party (1997) CB_OPFL_BIR_COPPL_22222227132337_922222713443, C001 CB_OPFL_BIR_COPPL_22222227132337_922222713443, C001 CB_OPFL_BIR_COPPL_22222227132337_922222713443, C001 CB_OPFL_BIR_COPPL_22222227132337_922222713443, C001 CB_OPFL_BIR_COPPL_22222227132337_922222713443, C001 CB_OPFL_BIR_COPPL_2322227133337_9222227134150_C001 CB_OPFL_BIR_COPPL_2322227133337_9222227134150_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227134150_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227134150_C001 CB_OPFL_BIR_COPPL_2322227134337_9222227134337_0220227134337_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227134337_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227134337_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227134337_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227123331_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227123331_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227123331_C001 CB_OPFL_BIR_COPPL_23222227134337_9222227123331_C001 CB_OPFL_BIR_COPPL_23222227123334_P2222227123332_C001 CB_OPFL_BIR_COPPL_23222227123334_P222227123332_C001 CB_OPFL_BIR_COPPL_23222227123334_P222227123332_C001 CB_OPFL_BIR_COPPL_232222227123334_P2222227123334_D222227123334_C001 CB_OPFL_BIR_COPPL_23222227123334_P2222227123334_D2222227123334_C001 CB_OPFL_BIR_COPPL_232222227123334_P2222227123334_D2222227123354_C001 CB_OPFL_BIR_COPPL_232222227123334_P2222227123354_C001 CB_OPFL_BIR_COPPL_232222227123334_D2222227123354_C001 CB_OPFL_BIR_COPPL_232222227123334_D2222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_D2222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_232222227123354_C001 CB_OPFL_BIR_COPPL_2322222227103354_C001 CB_OPFL_BIR_COPPL_2322222227103354_C001 CB_OPFL_BIR_COPPL_232222227103354_C0	CS_OFFL_SIR_GOPN_2_20220222T124152_20220222T124551_C001			
CS_OFFL_SIR_OOPI_2_0220222T190508_2022022T19019_0001	CS_OFFL_SIR_GOPN_2_20220222T132040_20220222T132258_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
OCCG Barbaceter Quality CS_OFFL_SIR_GOPN_2_202202271192527_20220227192726_C001 CS_OFFL_SIR_GOPN_2_202202271192527_20220227192726_C001 CS_OFFL_SIR_GOPN_2_202202271192527_20220227192726_C001 CS_OFFL_SIR_GOPN_2_202202271192527_20220227192726_C001 CS_OFFL_SIR_GOPN_2_202202271192444_202202271192726_C001 CS_OFFL_SIR_GOPN_2_202202271192444_202202271192726_C001 CS_OFFL_SIR_GOPN_2_202202271192444_202202271192726_C001 CS_OFFL_SIR_GOPN_2_202202271192454_20220227100037_C001 CS_OFFL_SIR_GOPN_2_202202271192454_20220227100037_C001 CS_OFFL_SIR_GOPN_2_202202271204820_20220227200037_C001 CS_OFFL_SIR_GOPN_2_202202271204820_20220227200037_C001 CS_OFFL_SIR_GOPN_2_2022022271204820_20220227200037_C001 CS_OFFL_SIR_GOPN_2_202202227204820_20220227200037_C001 CS_OFFL_SIR_GOPN_2_2022022272104820_202202272100037_C001 CS_OFFL_SIR_GOPN_2_2022022272104820_202227231114_C001 CS_OFFL_SIR_GOPN_2_2022022272104820_202227231114_C001 CS_OFFL_SIR_GOPN_2_202202227210480_2022227231114_C001 CS_OFFL_SIR_GOPN_2_202202227203840_202222227231114_C001 CS_OFFL_SIR_GOPN_2_202202227203840_20222227231114_C001 CS_OFFL_SIR_GOPN_2_202202227203840_20222227231114_C001 CS_OFFL_SIR_GOPN_2_202202227203840_2022227230120_C001 CS_OFFL_SIR_GOPN_2_202202227203840_2022227230120_C001 CS_OFFL_SIR_GOPN_2_202202227203840_2022227230140_C001 CS_OFFL_SIR_GOPN_2_202202227004850_2022227230140_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202202227230140_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202222723004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_2022227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_2022227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_2022227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_202227023004_C001 CS_OFFL_SIR_GOPN_2_202202227004850_20227023004_C001 CS_OFFL_SIR_GOPN_2_20220	CS_OFFL_SIR_GOPN_2_20220222T135237_20220222T135443_C001			
OSC SEASCASTER Guilty OSC SPEL_SIR_GOPN_2_20220227198297_20220227198296_0010 OSC SPEL_SIR_GOPN_2_20220227198297_20220227198296_0010 OSC SPEL_SIR_GOPN_2_20220227198297_20220227198296_0010 OSC SPEL_SIR_GOPN_2_20220227198297_20220227198296_0010 OSC SPEL_SIR_GOPN_2_20220227198296_002227200007_0010 OSC SPEL_SIR_GOPN_2_202202271284944_202202227198296_0010 OSC SPEL_SIR_GOPN_2_202202271284969_20220227200007_0010 OSC SPEL_SIR_GOPN_2_202202271284989_20220227129877_0010 OSC SPEL_SIR_GOPN_2_20220227128498_20220227129144_0010 OSC SPEL_SIR_GOPN_2_20220227128498_20220227129144_0010 OSC SPEL_SIR_GOPN_2_20220227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_20220227129144_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_202202271005510_0010 OSC OFFIL_SIR_GOPN_2_202202227128490_202202271005510_0010 OSC OFFIL_SIR_GOPN_2_202202227104598_2022022271005510_0010 OSC OFFIL_SIR_GOPN_2_202202227104598_202202271005520_0010 OSC OFFIL_SIR_GOPN_2_202202227102859_202202271005520_0010 OSC OFFIL_SIR_GOPN_2_202202227102859_202202271005520_0010 OSC OFFIL_SIR_GOPN_2_202202227102859_202202271005520_0010 OSC OFFIL_SIR_GOPN_2_202202227102659_20202271005520_0010 OSC OFFIL_SIR_GOPN_2_2022022271005520_0010 OSC OFFIL_SIR	CS_OFFL_SIR_GOPN_2_20220222T135838_20220222T140418_C001			
OCOG Backscatter Guelty OCS OFFL_SIR_GOPN_2_2022022T194944_2022022T106250_0001 OCS OFFL_SIR_GOPN_2_2022022T195262_2022022T106250_0001 OCS OFFL_SIR_GOPN_2_2022022T195262_2022022T20037_C001 OCS OFFL_SIR_GOPN_2_2022022T195262_2022022T20507_C001 OCS OFFL_SIR_GOPN_2_2022022T195262_2022022T20507_C001 OCS OFFL_SIR_GOPN_2_2022022T219526_2022022T20507_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T20507_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T219537_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T219537_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T219537_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T219537_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T219537_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T22021_C001 OCS OFFL_SIR_GOPN_2_2022022T219536_2022022T22021_C001 OCS OFFL_SIR_GOPN_2_2022022T219540_2022022T230304_C001 OCS OFFL_SIR_GOPN_2_2022022T20506_2_2022022T203044_C001 OCS OFFL_SIR_GOPN_2_2022022T20506_2_2022022T03044_C001 OCS OFFL_SIR_GOPN_2_2022022T20506_2_2022022T03044_C001 OCS OFFL_SIR_GOPN_2_2022022T20506_2_2022022T03044_C001 OCS OFFL_SIR_GOPN_2_2022022T02506_2_2022022T03044_C001 OCS OFFL_SIR_GOPR_2_2022022T02506_2_2022022T03044_C001 OCS OFFL_SIR_GOPR_2_2022022T03046_2001 OCS OFFL_SIR_GOPR_2_2022022T03046_2001 OCS OFFL_SIR_GOPR_2_2022022T03046_2001 OCS OFFL_SIR_GOPR_2_2022022T03046_2001 OCS OFFL_SIR_GOPR_2	CS_OFFL_SIR_GOPN_2_20220222T150028_20220222T150150_C001			
GS_OFFL_SIR_GOPN_2_2022022T196928_2022022T200037_C001 GS_OFFL_SIR_GOPN_2_2022022T196928_2022022T200037_C001 GS_OFFL_SIR_GOPN_2_2022022T196928_2022022T200037_C001 GS_OFFL_SIR_GOPN_2_2022022T2196928_2022022T200037_C001 GS_OFFL_SIR_GOPN_2_2022022T204830_2022022T205017_C001 GS_OFFL_SIR_GOPN_2_2022022T204830_2022022T205017_C001 GS_OFFL_SIR_GOPN_2_2022022T213436_2022022T219837_C001 GS_OFFL_SIR_GOPN_2_2022022T213436_2022022T219837_C001 GS_OFFL_SIR_GOPN_2_2022022T213436_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T23564_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T23564_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T23564_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T23564_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T23564_2022022T23001_C001 GS_OFFL_SIR_GOPN_2_2022022T205662_2001 GS_OFFL_SIR_GOPN_2_2022022T205662_2001 GS_OFFL_SIR_GOPN_2_2022022T04936_2022022T023004_C001 GS_OFFL_SIR_GOPN_2_2022022T04936_2022022T03004_C001 GS_OFFL_SIR_GOPN_2_2022022T04936_2022022T03004_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T049746_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T0497476_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T0497476_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T0497476_2022022T056926_C001 GS_OFFL_SIR_GOPN_2_2022022T0497476_2022022T056926_C001 GS_OFF	CS_OFFL_SIR_GOPN_2_20220222T192527_20220222T192726_C001			
CS_OFFL_SIR_GOPN_2_2022022T204830_20222T205017_C001 CS_OFFL_SIR_GOPN_2_2022022T213435_2022022T213837_C001 CS_OFFL_SIR_GOPN_2_2022022T213435_2022022T213837_C001 CS_OFFL_SIR_GOPN_2_2022022T213435_2022022T213837_C001 CS_OFFL_SIR_GOPN_2_2022022T233134_C001 CS_OFFL_SIR_GOPN_2_2022022T233134_C001 CS_OFFL_SIR_GOPN_2_2022022T231840_2022022T231114_C001 CS_OFFL_SIR_GOPN_2_2022022T231840_2022022T23201_C001 CS_OFFL_SIR_GOPN_2_2022022T231840_2022022T23201_C001 CS_OFFL_SIR_GOPN_2_2022022T203806_2022022T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T04896_2022022T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_2001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T028280_20012T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T05510_C001 CS_OFFL_SIR_GOPR_2_2022022T05510_C	CS_OFFL_SIR_GOPN_2_20220222T194944_20220222T195250_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM. CS_OFFL_SIR_GOPN_2_20220222T213435_2022022T213637_C001 CS_OFFL_SIR_GOPN_2_20220222T213435_2022022T213637_C001 CS_OFFL_SIR_GOPN_2_20220222T23345_2022022T233114_C001 CS_OFFL_SIR_GOPN_2_2022022T233440_2022022T233114_C001 CS_OFFL_SIR_GOPN_2_2022022T233440_2022022T233114_C001 CS_OFFL_SIR_GOPN_2_2022022T233440_2022022T233021_C001 CS_OFFL_SIR_GOPN_2_2022022T233440_2022022T233021_C001 CS_OFFL_SIR_GOPN_2_2022022T233440_2022022T233021_C001 CS_OFFL_SIR_GOPN_2_2022022T2004936_2022022T00510_C001 CS_OFFL_SIR_GOPN_2_2022022T004936_2022022T00510_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_202022T002502_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_202022T002502_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_202022T0025004_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_2020022T0025004_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_2020022T0025004_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_2020022T0025004_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_2020022T00004_C001 CS_OFFL_SIR_GOPN_2_2022022T0025026_2020022T000004_C001 CS_OFFL_SIR_GOPN_2_2022022T00006_2020002T00004_C001 CS_OFFL_SIR_GOPN_2_2022022T00006_20200004_C001 CS_OFFL_SIR_GOPN_2_2022022T00006_20200004_C001 CS_OFFL_SIR_GOPN_2_2022022T00006_20200004_C001 CS_OFFL_SIR_GOPN_2_2022000004_C001 CS_OFFL_SIR_GOPN_2_2022000004_C001 CS_OFFL_SIR_GOPN_2_200000004_C001 CS_OFFL_SIR_GOPN_2_2000000004_C001 CS_OFFL_SIR_GOPN_2_20000000000000000000000000000000000	CS_OFFL_SIR_GOPN_2_20220222T195526_20220222T200037_C001			
OCG Allimeter Range Quality PLRM, OCG Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range and Backscatter Quality FLRM, OCG Allimeter Range and Backscatter Quality FLRM, OCG Allimeter Range, SSHA, SWH and Backscatter Quality FLRM, OCG Allimeter Range and Backscatter Quality FLR	CS_OFFL_SIR_GOPN_2_20220222T204630_20220222T205017_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
OCG Backscatter Quality CS_OFFL_SIR_GOPN_2_20220222T231840_2022022T232021_C001 CS_OFFL_SIR_GOPN_2_20220222T04936_2022022T05510_C001 CS_OFFL_SIR_GOPR_2_20220222T04936_2022022T05510_C001 CS_OFFL_SIR_GOPR_2_20220222T022829_C001 CS_OFFL_SIR_GOPR_2_20220222T022829_C001 CS_OFFL_SIR_GOPR_2_20220222T022829_C001 CS_OFFL_SIR_GOPR_2_20220222T022829_C001 CS_OFFL_SIR_GOPR_2_2022022T023026_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T023026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T023026_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T023026_202022T03529_C001 CS_OFFL_SIR_GOPR_2_2022022T03026_202022T03529_C001 CS_OFFL_SIR_GOPR_2_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T03006_2020022T03529_C001 CS_OFFL_SIR_GOPR_2_2022022T03006_2020022T03529_C001 CS_OFFL_SIR_GOPR_2_2022022T03006_2020022T03529_C001 CS_OFFL_SIR_GOPR_2_2022022T040725_2022022T04770_C001 CS_OFFL_SIR_GOPR_2_2022022T040775_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_2022022T040775_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T05626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_20220222T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_202202207061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001	CS_OFFL_SIR_GOPN_2_20220222T213435_20220222T213637_C001			
CS_OFFL_SIR_GOPN_2_20220222T031840_2022022T032021_c001 and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM CS_OFFL_SIR_GOPR_2_2022022T004936_2022022T005510_C001 CS_OFFL_SIR_GOPR_2_2022022T02823_2022022T02829_C001 CS_OFFL_SIR_GOPR_2_2022022T028259_2022022T02829_C001 CS_OFFL_SIR_GOPR_2_2022022T02859_2022022T02829_C001 CS_OFFL_SIR_GOPR_2_2022022T02859_2022022T023004_C001 CS_OFFL_SIR_GOPR_2_2022022T02859_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T02959_202022T03004_C001 CS_OFFL_SIR_GOPR_2_2022022T03026_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T023529_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2022022T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T03026_2020222T03004_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_2020222T035666_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_2020222T041730_C001 CS_OFFL_SIR_GOPR_2_20220222T056740_2020222T056666_C001 CS_OFFL_SIR_GOPR_2_20220222T056740_2020222T056666_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T056666_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2020222T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2020222T061157_C001 CS_OF	CS_OFFL_SIR_GOPN_2_20220222T230504_20220222T231114_C001			
and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altim	CS_OFFL_SIR_GOPN_2_20220222T231840_20220222T232021_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM CS_OFFL_SIR_GOPR_2_20220222T022859_20220222T023004_C001 CS_OFFL_SIR_GOPR_2_20220222T023026_202222T023004_C001 CS_OFFL_SIR_GOPR_2_20220222T023026_202222T023004_C001 CS_OFFL_SIR_GOPR_2_20220222T023026_202222T023004_C001 CS_OFFL_SIR_GOPR_2_20220222T023026_202222T023529_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_20220222T023529_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_20220222T041730_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_20220222T041730_C001 CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_20220222T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_20220222T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_202202222T072102_C001 Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range and B	CS_OFFL_SIR_GOPR_2_20220222T004936_20220222T005510_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags	CS_OFFL_SIR_GOPR_2_20220222T022623_20220222T022829_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM CS_OFFL_SIR_GOPR_2_20220222T040725_2022022T041730_C001 CS_OFFL_SIR_GOPR_2_20220222T040725_20220222T041730_C001 CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_20220222T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T0777777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T077777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T0777777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T0777777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T0777777_20220222T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T0777777_20220222T072102_C001	CS_OFFL_SIR_GOPR_2_20220222T022859_20220222T023004_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T072102_C001 CS_OFFL_SIR_GOPR_2_20220222T071737_20220222T072102_C001	CS_OFFL_SIR_GOPR_2_20220222T023026_20220222T023529_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
CS_OFFL_SIR_GOPR_2_20220222T054740_2022022T055626_C001 and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM OCOG Altimeter Range and Backscatter Quality PLRM OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Plags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backs	CS_OFFL_SIR_GOPR_2_20220222T040725_20220222T041730_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
CS_OFFL_SIR_GOPR_2_20220222T060913_2022022T061157_C001 and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Plags have been and the OCOG Altimeter Range and Backscatter Quality Plags have been and the OCOG Altimeter Range and Backscatter Quality Plags have been and the OCOG Altimeter Range and Backscatter Quality Plags have been and the OCOG Altimeter Range and Backscatter Quality Plags have been and the OCOG Altimeter Range and Backscatter Quality Plags have been and	CS_OFFL_SIR_GOPR_2_20220222T054740_20220222T055626_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
and Backscatter Quality PLRM, OCOG CS_OFFL_SIR_GOPR_2_20220222T071737_20220222T072102_C001 and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_GOPR_2_20220222T060913_20220222T061157_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been	
PLRM set for one or more records	CS_OFFL_SIR_GOPR_2_20220222T071737_20220222T072102_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality		
CS_OFFL_SIR_GOPR_2_20220222T072102_20220222T072629_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality PLRM. OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_GOPR_2_20220222T072102_20220222T072629_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been	

CS_OFFL_SIR_GOPR_2_20220222T072902_20220222T073646_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_20220222T073754_20220222T073902_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_20220222T090805_20220222T091519_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_20220222T091801_20220222T092245_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_20220222T092953_20220222T093434_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_20220222T102250_20220222T102504_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_20220222T103706_20220222T104216_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_20220222T104248_20220222T104354_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_20220222T104354_20220222T104503_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_20220222T104720_20220222T105409_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_20220222T111455_20220222T111634_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_20220222T113130_20220222T113134_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_20220222T121837_20220222T122043_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_20220222T123128_20220222T123218_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_20220222T124644_20220222T124807_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_20220222T132258_20220222T132347_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_20220222T140418_20220222T140622_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_20220222T140622_20220222T141331_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_20220222T150150_20220222T150309_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_20220222T154932_20220222T155127_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_20220222T161957_20220222T162327_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_20220222T185900_20220222T190613_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_20220222T191200_20220222T191812_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_20220222T191956_20220222T192021_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_20220222T194847_20220222T194944_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_20220222T200037_20220222T200133_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_20220222T221844_20220222T222348_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_20220222T223327_20220222T223554_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_20220222T234210_20220222T234415_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records	

L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

162

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

Number of products with errors:

5.8 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20 Hz)

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

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

Number of products with errors: 52

L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors: 120

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:

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

0

6.4 P2P Auxiliary Correction Error Check

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220220222T000406_20220222T005343_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_220220222T005343_20220222T014321_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_220220222T014321_20220222T023258_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_20220222T023258_20220222T032236_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_20220222T032236_20220222T041213_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_220220222T041213_20220222T050150_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_20220222T050150_20220222T055127_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_220220222T055127_20220222T064105_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_220220222T064105_20220222T073042_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), 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 height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_220220222T073042_20220222T082020_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_220220222T082020_20220222T090957_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_220220222T090957_20220222T095934_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_220220222T095934_20220222T104911_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_220220222T104911_20220222T113849_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_220220222T113849_20220222T122826_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_220220222T122826_20220222T131804_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_220220222T131804_20220222T140741_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_220220222T140741_20220222T145718_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_20220222T145718_20220222T154655_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_220220222T154655_20220222T163633_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_220220222T181548_20220222T190525_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_20220222T190525_20220222T195502_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_220220222T195502_20220222T204439_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_20220222T204439_20220222T213417_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_2_20220222T213417_20220222T222354_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_20220222T222354_20220222T231332_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 height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

6.5 P2P Measurement Confidence Data Check

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20220222T095934_20220222T104911_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_2_20220222T131804_20220222T140741_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_2_20220222T222354_20220222T231332_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

6.6 P2P Measurement Quality Flag Check

P2P Quality Flags (20 Hz)

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

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

Number of products with errors:

P2P Quality Flags (20 Hz PLRM)

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

Number of products with errors: 2

P2P Quality Flags (1 Hz & 1 Hz PLRM)

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

Number of products with errors:

6.8 P2P Ocean Retracking Quality Check

P2P Retracking Flags (20 Hz)

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

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

P2P Retracking Flags PLRM

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

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

Number of products with errors:

21

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	188	188	7	181	0
SIR_GOPR1B	99	99	0	99	0
SIR_GOPN1B	83	83	1	82	0
SIR_GOPM_2	188	188	134	54	0
SIR_GOPR_2	99	99	38	58	3
SIR_GOPN_2	83	83	32	51	0
SIR_GOP_P2P	27	27	0	24	3

7.1 QCC Errors

Number of QCC reports with errors:

6

Total number of occurrences of each error											
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_GOPR_2	3	3	3	3							
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_GOP_2_	3	3	3	3							

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						

7.2 QCC Warnings

Number of QCC reports with warnings

1816

Total number of occurrences of each warning								
Product Type	Product Type BCSHNCDF IOHHMOOR		MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	
SIR_GOPM1B	181	0	0	0	0	0	0	
SIR_GOPM_2	0	0	35	34	0	43	0	
SIR_GOPN1B	82	0	0	0	0	0	0	
SIR_GOPN_2	0	0	8	27	6	18	21	
SIR_GOPR1B	97	0	0	0	0	0	0	
SIR_GOPR_2	0	3	15	29	1	23	21	

Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCI	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	36	32	0	0	0	0	23
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	13	0	0	14	0	25	0
SIR_GOPR1B	0	0	0	0	0	0	0
SIR GOPR 2	14	0	32	0	40	0	0

Pro	oduct Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIF	R_GOPM1B	0	0	0	0	0	0	0
SIF	R_GOPM_2	0	0	6	19	0	4	34
SIF	R_GOPN1B	0	0	0	0	0	0	0
SIF	R_GOPN_2	0	22	13	37	43	21	26
SIF	R_GOPR1B	0	0	0	0	0	0	0
SIF	R_GOPR_2	30	0	9	45	18	7	21

Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_GOPM1B	0	0	1	0	0	0	
SIR_GOPM_2	0	1	1	0	0	0	
SIR_GOPN1B	0	0	1	0	39	1	
SIR_GOPN_2	27	12	0	1	0	0	
SIR_GOPR1B	0	0	0	0	99	5	
SIR_GOPR_2	32	1	0	5	0	0	

Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_GOP_2_	15	26	27	6	27	16	26
			•				
Product Type	RPEPOPFDPLRMSINNCDI	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF

	•	•					
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	•	•	•
SID COD 3	27	16	12	27			

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
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
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
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: