

1. Overview

Report Production:	21-Dec-2022
Processor Used:	CryoSat Ocean Processor
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data

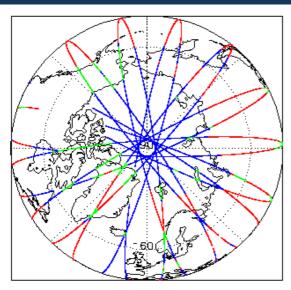
We would love to hear from you!

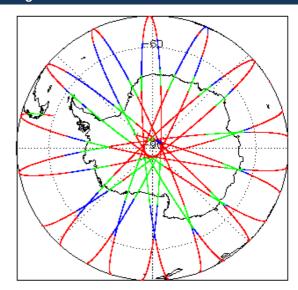
Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2_qc_team@telespazio.com

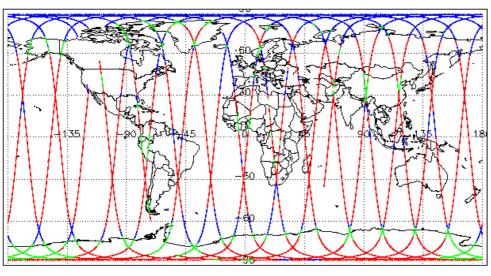
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1, 7.2

I	Mission / Instru	ment News
	17-Dec-2022	None
	18-Dec-2022	None
	19-Dec-2022	Nothing planned

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis

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

Number of products with errors:

0

4.3 L1B Auxilary Data File Usage Check

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

Number of products with errors:

0

4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

0

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 IOPR products due to a configuration issue. The attitude correction is actually not missing. This will be resolved in the next SW update.

Number of products with errors:

1

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20221218T022147_20221218T022931_C001	Power scaling error	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 products over land, but this is to be expected. The table provides the full list of products flagged.

Number of products with errors:

		I
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20221218T132357_20221218T132601_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20221218T200309_20221218T200524_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20221218T210630_20221218T210916_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T024913_20221218T025236_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T055236_20221218T055934_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T131632_20221218T131711_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T141213_20221218T141553_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T145300_20221218T145525_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T155157_20221218T155451_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20221218T232218_20221218T233126_C001	Loss of Echo	The tracking echo is missing for one or more records

5. IOP 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:

0

5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

0

5.4 L2 Auxiliary Correction Error Check

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

Currently, there are some common auxiliary correction errors raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which 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.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors:

53

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20221218T084418_20221218T085450_C001	IMean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T023910_20221218T024033_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records

CS_OFFL_SIR_IOPN_2_20221218T024559_20221218T024912_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T033714_20221218T033821_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T041843_20221218T041957_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T042458_20221218T042818_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)
CS_OFFL_SIR_IOPN_2_20221218T055934_20221218T060210_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)
CS_OFFL_SIR_IOPN_2_20221218T065447_20221218T065607_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T073703_20221218T074106_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)
CS_OFFL_SIR_IOPN_2_20221218T083403_20221218T083508_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)
CS_OFFL_SIR_IOPN_2_20221218T091706_20221218T091900_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T092721_20221218T092908_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T105639_20221218T105758_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T123805_20221218T124006_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 (solution 1) and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20221218T141553_20221218T141915_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)
CS_OFFL_SIR_IOPN_2_20221218T142439_20221218T142557_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T151441_20221218T151805_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T155451_20221218T155811_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)
CS_OFFL_SIR_IOPN_2_20221218T173121_20221218T173322_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T174203_20221218T174333_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)
CS_OFFL_SIR_IOPN_2_20221218T191927_20221218T192132_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)
CS_OFFL_SIR_IOPN_2_20221218T200309_20221218T200524_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)
CS_OFFL_SIR_IOPN_2_20221218T210630_20221218T210916_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 (solution 1) and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20221218T213937_20221218T214355_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221218T223903_20221218T224109_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T001111_20221218T001946_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)
CS_OFFL_SIR_IOPR_2_20221218T015022_20221218T015756_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)
CS_OFFL_SIR_IOPR_2_20221218T020137_20221218T020333_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T020714_20221218T020859_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T032611_20221218T033549_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)
CS_OFFL_SIR_IOPR_2_20221218T033549_20221218T033714_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)
CS_OFFL_SIR_IOPR_2_20221218T050803_20221218T051448_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)
CS_OFFL_SIR_IOPR_2_20221218T051448_20221218T052034_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)
CS_OFFL_SIR_IOPR_2_20221218T064738_20221218T065337_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)
CS_OFFL_SIR_IOPR_2_20221218T065337_20221218T065447_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)

CS_OFFL_SIR_IOPR_2_20221218T073626_20221218T073703_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T082736_20221218T082910_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T082935_20221218T083136_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)
CS_OFFL_SIR_IOPR_2_20221218T083136_20221218T083403_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)
CS_OFFL_SIR_IOPR_2_20221218T100725_20221218T101317_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)
CS_OFFL_SIR_IOPR_2_20221218T114832_20221218T115338_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)
CS_OFFL_SIR_IOPR_2_20221218T131632_20221218T131711_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T132220_20221218T132356_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T132601_20221218T133541_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)
CS_OFFL_SIR_IOPR_2_20221218T150625_20221218T151441_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)
CS_OFFL_SIR_IOPR_2_20221218T164708_20221218T165501_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)
CS_OFFL_SIR_IOPR_2_20221218T182609_20221218T183154_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)
CS_OFFL_SIR_IOPR_2_20221218T200524_20221218T200705_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)
CS_OFFL_SIR_IOPR_2_20221218T200705_20221218T201212_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)
CS_OFFL_SIR_IOPR_2_20221218T213917_20221218T213937_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221218T214355_20221218T214916_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)
CS_OFFL_SIR_IOPR_2_20221218T232218_20221218T233126_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)
CS_OFFL_SIR_IOPR_2_20221218T233126_20221218T233203_C001	Mean Dynamic Topography (1)	There is an error with 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 IOPM 2 20221218T022147 20221218T022931 C001	218T022147_20221218T022931_C001 Power scaling error	There is an error in the scaling of the L1B waveform for one or more
C3_O11 L_3IN_IO1 W_Z_202212101022147_202212101022931_C001		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.

87

Number of products with errors:

Product Test Failed Description OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS OFFL SIR IOPM 2 20221218T002410 20221218T002411 C001 Backscatter Quality for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS OFFL SIR IOPM 2 20221218T002613 20221218T005748 C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T010036_20221218T010528_C001_ Backscatter Quality for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS OFFL SIR IOPM 2 20221218T011351 20221218T014704 C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been Ocean Altimeter Range, SSHA, SWH CS OFFL SIR IOPM 2 20221218T023542 20221218T023559 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T024033_20221218T024559_C001 Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been Ocean Altimeter Range, SSHA, SWH CS OFFL SIR IOPM 2 20221218T025236 20221218T031401 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality CS OFFL SIR IOPM 2 20221218T031647 20221218T032611 C001 and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been Ocean Altimeter Range, SSHA, SWH CS OFFL SIR IOPM 2 20221218T033831 20221218T034124 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS_OFFL_SIR_IOPM_2_20221218T035801_20221218T041505_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T041958_20221218T042458_C001 Backscatter Quality for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS OFFL SIR IOPM 2 20221218T043127 20221218T050447 C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality CS_OFFL_SIR_IOPM_2_20221218T052940_20221218T055235_C001 and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T060211_20221218T060403_C001 **Backscatter Quality** for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS_OFFL_SIR_IOPM_2_20221218T061114_20221218T061802_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS_OFFL_SIR_IOPM_2_20221218T061804_20221218T062631_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221218T062643_20221218T062824_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20221218T063305 20221218T064127 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T064628_20221218T064635_C001 Backscatter Quality for one or more records OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS OFFL SIR IOPM 2 20221218T065608 20221218T065855 C001 Backscatter Quality for one or more records Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20221218T070045 20221218T071707 C001 Altimeter Range and Backscatter Quality set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags. Ocean Altimeter Range, SSHA, SWH CS OFFL SIR IOPM 2 20221218T071921 20221218T073400 C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20221218T074106_20221218T074316_C001 for one or more records

CS_OFFL_SIR_IOPM_2_20221218T074404_20221218T074818_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_IOPM_2_20221218T075009_20221218T080529_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_IOPM_2_20221218T080730_20221218T081650_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_IOPM_2_20221218T083508_20221218T083550_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_IOPM_2_20221218T084418_20221218T085450_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_IOPM_2_20221218T090129_20221218T091537_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_IOPM_2_20221218T091901_20221218T092721_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_IOPM_2_20221218T092959_20221218T094629_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_IOPM_2_20221218T094849_20221218T095100_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_IOPM_2_20221218T103150_20221218T105441_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_IOPM_2_20221218T110042_20221218T110544_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_IOPM_2_20221218T110909_20221218T113401_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_IOPM_2_20221218T120600_20221218T123238_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_IOPM_2_20221218T124006_20221218T124607_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_IOPM_2_20221218T124826_20221218T131631_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_IOPM_2_20221218T133904_20221218T141213_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_IOPM_2_20221218T141915_20221218T142438_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_IOPM_2_20221218T142818_20221218T143233_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_IOPM_2_20221218T145646_20221218T145730_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_IOPM_2_20221218T145833_20221218T145911_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_IOPM_2_20221218T150245_20221218T150625_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_IOPM_2_20221218T151831_20221218T152717_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_IOPM_2_20221218T153002_20221218T155157_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_IOPM_2_20221218T155924_20221218T160332_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_IOPM_2_20221218T160818_20221218T161836_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_IOPM_2_20221218T162023_20221218T162505_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 IOPM 2 20221218T165706 20221218T173033 C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been
	Altimeter Range and Backscatter Quality	set for one or more records
CS_OFFL_SIR_IOPM_2_20221218T173322_20221218T173818_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_IOPM_2_20221218T173839_20221218T174202_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_IOPM_2_20221218T174918_20221218T182041_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_IOPM_2_20221218T182254_20221218T182507_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_IOPM_2_20221218T183447_20221218T183510_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_IOPM_2_20221218T183924_20221218T184758_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_IOPM_2_20221218T185344_20221218T191010_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_IOPM_2_20221218T191205_20221218T191717_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_IOPM_2_20221218T191736_20221218T191749_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_IOPM_2_20221218T192717_20221218T194058_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_IOPM_2_20221218T194403_20221218T195644_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_IOPM_2_20221218T202240_20221218T203300_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_IOPM_2_20221218T203440_20221218T204850_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_IOPM_2_20221218T205128_20221218T205629_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_IOPM_2_20221218T205636_20221218T205647_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_IOPM_2_20221218T210504_20221218T210630_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_IOPM_2_20221218T210916_20221218T211832_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_IOPM_2_20221218T212158_20221218T212650_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_IOPM_2_20221218T215430_20221218T215435_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_IOPM_2_20221218T215845_20221218T215853_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_IOPM_2_20221218T220539_20221218T222808_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_IOPM_2_20221218T223203_20221218T223547_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_IOPM_2_20221218T224227_20221218T231046_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_IOPM_2_20221218T234223_20221219T000722_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_IOPN_2_20221218T015756_20221218T015759_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_IOPN_2_20221218T022057_20221218T022147_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_IOPN_2_20221218T065855_20221218T070011_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_IOPN_2_20221218T082719_20221218T082736_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_IOPR_2_20221218T000053_20221218T000135_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_IOPR_2_20221218T021005_20221218T021216_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_IOPR_2_20221218T033549_20221218T033714_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_IOPR_2_20221218T105441_20221218T105639_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_IOPR_2_20221218T114832_20221218T115338_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T131722_20221218T131728_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_IOPR_2_20221218T145527_20221218T145646_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_IOPR_2_20221218T151805_20221218T151831_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_IOPR_2_20221218T200524_20221218T200705_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (20 Hz PLRM)

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

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

Number of products with errors:

85

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20221218T010904_20221218T011047_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_IOPN_2_20221218T014704_20221218T014821_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_IOPN_2_20221218T014902_20221218T015021_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_IOPN_2_20221218T022057_20221218T022147_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_IOPN_2_20221218T024559_20221218T024912_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_IOPN_2_20221218T035505_20221218T035801_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_IOPN_2_20221218T055934_20221218T060210_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_IOPN_2_20221218T060403_20221218T061029_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_IOPN_2_20221218T065855_20221218T070011_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_IOPN_2_20221218T073447_20221218T073626_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_IOPN_2_20221218T074316_20221218T074403_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_IOPN_2_20221218T074819_20221218T074953_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPN_2_20221218T083550_20221218T083639_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_IOPN_2_20221218T085622_20221218T090129_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_IOPN_2_20221218T095401_20221218T095749_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_IOPN_2_20221218T095826_20221218T095919_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_IOPN_2_20221218T105639_20221218T105758_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_IOPN_2_20221218T110545_20221218T110819_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_IOPN_2_20221218T123805_20221218T124006_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_IOPN_2_20221218T124607_20221218T124737_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_IOPN_2_20221218T141553_20221218T141915_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_IOPN_2_20221218T145730_20221218T145800_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_IOPN_2_20221218T151441_20221218T151805_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_IOPN_2_20221218T155451_20221218T155811_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_IOPN_2_20221218T162506_20221218T162830_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_IOPN_2_20221218T173121_20221218T173322_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_IOPN_2_20221218T182057_20221218T182159_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_IOPN_2_20221218T200309_20221218T200524_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_IOPN_2_20221218T202008_20221218T202240_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_IOPN_2_20221218T210630_20221218T210916_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_IOPN_2_20221218T211832_20221218T212158_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_IOPN_2_20221218T213900_20221218T213917_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_IOPN_2_20221218T213937_20221218T214355_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_IOPN_2_20221218T214916_20221218T214938_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_IOPN_2_20221218T220003_20221218T220404_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_IOPN_2_20221218T222847_20221218T223203_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_IOPN_2_20221218T223903_20221218T224109_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_IOPN_2_20221218T233229_20221218T233352_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for omore records
CS_OFFL_SIR_IOPR_2_20221218T000053_20221218T000135_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for omore records
CS_OFFL_SIR_IOPR_2_20221218T001111_20221218T001946_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T002008_20221218T002236_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T011047_20221218T011111_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T014822_20221218T014830_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for a more records
CS_OFFL_SIR_IOPR_2_20221218T015022_20221218T015756_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T020137_20221218T020333_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T021005_20221218T021216_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T041505_20221218T041843_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T050803_20221218T051448_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T051448_20221218T052034_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 have and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T064252_20221218T064256_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T064738_20221218T065337_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 Fand the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T071707_20221218T071921_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T082736_20221218T082910_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T082935_20221218T083136_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 Fland the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T083639_20221218T083829_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 Fland the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T084035_20221218T084418_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T092909_20221218T092959_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 Fland the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T095100_20221218T095320_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T100725_20221218T101317_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 Fand the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T101822_20221218T102123_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T102700_20221218T102819_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for more records
CS_OFFL_SIR_IOPR_2_20221218T114429_20221218T114624_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 Fand the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records
CS_OFFL_SIR_IOPR_2_20221218T114657_20221218T114812_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 F and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records

CS_OFFL_SIR_IOPR_2_20221218T123239_20221218T123603_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_IOPR_2_20221218T132220_20221218T132356_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_IOPR_2_20221218T132601_20221218T133541_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_IOPR_2_20221218T141213_20221218T141553_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_IOPR_2_20221218T145527_20221218T145646_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_IOPR_2_20221218T145911_20221218T150137_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_IOPR_2_20221218T150625_20221218T151441_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_IOPR_2_20221218T155157_20221218T155451_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_IOPR_2_20221218T164150_20221218T164421_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_IOPR_2_20221218T164708_20221218T165501_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_IOPR_2_20221218T174334_20221218T174843_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_IOPR_2_20221218T182609_20221218T183154_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_IOPR_2_20221218T183602_20221218T183857_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_IOPR_2_20221218T194058_20221218T194403_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_IOPR_2_20221218T195644_20221218T195946_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_IOPR_2_20221218T200705_20221218T201212_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_IOPR_2_20221218T213548_20221218T213900_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_IOPR_2_20221218T213917_20221218T213937_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_IOPR_2_20221218T214355_20221218T214916_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_IOPR_2_20221218T214938_20221218T215036_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_IOPR_2_20221218T220434_20221218T220539_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_IOPR_2_20221218T232218_20221218T233126_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

187

> 1 Hz and 1 Hz Ocean SSHA Quality Flags: These flags are currently set for products over sea ice, which is to be expected. The number of products with this error flag set is given below.

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.

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 IOPR and IOPN products over 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:

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

6.1 P2P Product Format Check

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

Number of products with errors:

0

150

6.2 P2P Product Header Analysis

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

Number of products with errors:

0

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

0

6.4 P2P Auxiliary Correction Error Check

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

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

- > 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.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.

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- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20221217T232629_20221218T001605_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)
CS_OFFL_SIR_IOP_2_20221218T001605_20221218T010544_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)
CS_OFFL_SIR_IOP_2_20221218T010544_20221218T015520_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)
CS_OFFL_SIR_IOP_2_20221218T015520_20221218T024459_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)
CS_OFFL_SIR_IOP_2_20221218T024459_20221218T033434_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)
CS_OFFL_SIR_IOP_2_20221218T033434_20221218T042413_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)
CS_OFFL_SIR_IOP_2_20221218T042413_20221218T051349_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)
CS_OFFL_SIR_IOP_2_20221218T051349_20221218T060328_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)
CS_OFFL_SIR_IOP_2_20221218T060328_20221218T065304_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)
CS_OFFL_SIR_IOP_2_20221218T065304_20221218T074242_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20221218T074242_20221218T083218_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)
CS_OFFL_SIR_IOP_2_20221218T083218_20221218T092157_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)
CS_OFFL_SIR_IOP_2_20221218T092157_20221218T101133_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)
CS_OFFL_SIR_IOP_2_20221218T101133_20221218T110112_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)
CS_OFFL_SIR_IOP_2_20221218T110112_20221218T115048_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)
CS_OFFL_SIR_IOP_2_20221218T115048_20221218T124027_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 (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20221218T124027_20221218T133002_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)

CS_OFFL_SIR_IOP_2_20221218T133002_20221218T141941_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)
CS_OFFL_SIR_IOP_2_20221218T141941_20221218T150917_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)
CS_OFFL_SIR_IOP_2_20221218T150917_20221218T155856_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)
CS_OFFL_SIR_IOP_2_20221218T155856_20221218T164832_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)
CS_OFFL_SIR_IOP_2_20221218T164832_20221218T173811_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)
CS_OFFL_SIR_IOP_2_20221218T173811_20221218T182746_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)
CS_OFFL_SIR_IOP_2_20221218T182746_20221218T191725_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)
CS_OFFL_SIR_IOP_2_20221218T191725_20221218T200701_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)
CS_OFFL_SIR_IOP_2_20221218T200701_20221218T205640_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)
CS_OFFL_SIR_IOP_2_20221218T205640_20221218T214616_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 (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20221218T214616_20221218T223555_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)
CS_OFFL_SIR_IOP_2_20221218T223555_20221218T232530_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)
CS_OFFL_SIR_IOP_2_20221218T232530_20221219T001509_C002	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

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_IOP_220221218T015520_20221218T024459_C001	Power scaling error	There is an error in the scaling of the L1B 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. The number of P2P products affected is given below.

Number of products with errors: 29

P2P Quality Flags (20 Hz PLRM)

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

Number of products with errors: 30

P2P Quality Flags (1 Hz & 1 Hz PLRM)

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the number of L2 products affected. The number of P2P products affected is given below.

Number of products with errors: 30

6.8 P2P Ocean Retracking Quality Check

P2P Retracking Flags (20 Hz)

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

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

Number of products with errors: 2

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 IOPR and IOPN products over sea ice, but this is to be expected.

Number of products with errors: 3

7. IOP 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_IOPM1B	199	199	7	192	0
SIR_IOPR1B	145	96	1	95	0
SIR_IOPN1B	96	145	0	145	0
SIR_IOPM_2	199	199	147	52	0
SIR_IOPR_2	145	96	39	57	0
SIR_IOPN_2	96	145	59	85	1

7.1 QCC Errors		29 29		0 28				<u>'</u>			
	7.1 QCC Errors										
Number of QCC reports with errors: 8											
Product Type RLOBOP	PNCDF RL	RLOBOPNCDF	RL	Total number	r of occurrences of ea	ch error	-	-			-
SIR_IOPR_2 1	1 1	1	1								
Product Type RLOBOP		RLOBOPNCDF	RL	-	-	-	-	-	-		-
SIR_IOP_2_ 1	1 1	1	1								
Test Description Key: Abbreviation	Test name		Details								
RLOBOPNCDF	RangeLatitudeOrBlanl RangeLatitude_7	kOP_7NetCDF	Latitude sh	ould be between -90E7 ar							
RLOBOPNCDF	RangeLongitudeOrBla	nkOP_7NetCDF	Longitude s	should be between -180E7	7 and 180E7						
RL	RangeLongitude_7		Longitude s	should be between -180E7	7 and 180E7						
7.2 QCC Warning	gs										
Number of QCC reports	s with warnings	2206	;								
Product Type	BCSHNCDF	IOHHMOOR	М	Total numl	ber of occurrences of MVIOEPNCDF	MVIONCDI		RBSZOPOEPFD	NCDF F	RBSZOP	OEPFDPLRMNC
_	192	0	0		0	0		0		0	
	0 93	0	3.		36 0	0		47 0		0	
_	0	0	9	ı	29	3		26		25	
_	141	0	0		0	0		0		0	
SIR_IOPR_2	0	1	3	8	49	0		30	3	31	
	RBSZOPOEPNCDF	RNELPOTONCDF		PEPOPFDLRMNCDF	RPEPOPFDPLRMSARN		DPLRMSINNCD				FDSINNCDF
	0	0	0		0	0		0		0	
	37 0	0	0		0	0		0		D D	
	18	0	0		0	24		0		30	
SIR_IOPR1B	0	0	0		0	0		0		0	
SIR_IOPR_2	13	2	0	<u> </u>	51	0		61	(0	
Product Type	RPEPOPLRMNCDF	RPEPOPSARNCE	DF R	PEPOPSINNCDF	RSSBCONCDF	RSSHAOF	DNCDF	RSSHAOFDPLR	RMNCDF F	RSSHAO	NCDF
	0	0	0		0	0		0	C	-	
	24 0	0	0		6	22 0		0		6 D	
_	0	0	2		9	33		45		24	
	0	0	0		0	0		0		0	
SIR_IOPR_2	0	51	0								
	t Type RSWHOEPFDNCDF RSWHOEPFDPLRMNCDF RSWHOEPNCDF				3	72		34	1	13	
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLF	RMNCDF R		SOOHHIFHD	72 SCSTODH	RNCDF	SCSTODNCDF	1		
SIR_IOPM1B	0	0	RMNCDF R	SWHOEPNCDF	SOOHHIFHD 0	SCSTODH 0	RNCDF	SCSTODNCDF 0	-		
SIR_IOPM1B SIR_IOPM_2	0 30	0	0	SWHOEPNCDF	SOOHHIFHD 0 0	SCSTODHI 0 0	RNCDF	SCSTODNCDF 0 0	-		
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B	0	0		SWHOEPNCDF	SOOHHIFHD 0	SCSTODH 0	RNCDF	SCSTODNCDF 0	-	13	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B	0 30 0 22 0	0 0 0 23 0	0 1 0	SWHOEPNCDF	SOOHHIFHD	SCSTODHI 0 0 0 41 0 145	RNCDF	SCSTODNCDF	-		
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B	0 30 0 22	0 0 0 23	0 1 0	SWHOEPNCDF	SOOHHIFHD	SCSTODH 0 0 41 0	RNCDF	SCSTODNCDF 0 0 2 0	-		
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2	0 30 0 22 0	0 0 0 23 0	0 1 0 1 0 2	SWHOEPNCDF	SOOHHIFHD	SCSTODHI 0 0 0 41 0 145		SCSTODNCDF	-		OEPNCDF
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2 Product Type	0 30 0 22 0 38	0 0 0 23 0 54	0 1 0 1 0 2	ISWHOEPNCDF 0 IVIOEPNCDF	SOOHHIFHD	SCSTODHI 0 0 41 0 145 0		SCSTODNCDF 0 0 2 0 10	PLRMNCUF		OEPNCDF
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2	0 30 0 22 0 38	0 0 0 23 0 54 MVIOEPFDNCDF	0 1 0 1 0 2 2	ISWHOEPNCDF 0 IVIOEPNCDF	SOOHHIFHD 0 0 0 1 1 0 3	SCSTODHI 0 0 41 0 145 0	EPFDNCDF	SCSTODNCDF	PLRMNCIF 2	RBSZOP(OEPNCDF FDPLRMNCDF
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN_2 SIR_IOPN_2 SIR_IOPR1B SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type	0 30 0 22 0 38 IOHHMOOR	0 0 0 23 0 54 MVIOEPFDNCDF	0 1 0 1 0 2 2 MSINNCDIR	O IVIOEPNCDF	SOOHHIFHD 0	SCSTODH 0 0 41 0 145 0 RBSZOPO 29	EPFDNCDF	SCSTODNCDF	DPLRMNCUF 2	RBSZOP(
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2	0 30 0 22 0 38 IOHHMOOR 15	0 0 0 23 0 54 MVIOEPFDNCDF 28	0 1 0 1 0 2 2 MSINNCDIR 2:	O IVIOEPNCDF 9 IPEPOPFDSINNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25	SCSTODH 0 0 41 0 145 0 RBSZOPO 29	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN1B SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2	0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19	0 1 0 1 0 2 2 MSINNCDIR 2:	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPM_2 SIR_IOPN_2 SIR_IOPR1B SIR_IOPR2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2	0 0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPN1B SIR_IOPN1B SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2	0 0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM2 SIR_IOPM2 SIR_IOPN1B SIR_IOPN2 SIR_IOPR1B SIR_IOPR2 Product Type SIR_IOP 2	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2	0 0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPM_2 SIR_IOPN_2 SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2	0 0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18	DPLRMNCUF 2	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM_2 SIR_IOPM_2 SIR_IOPN_2 SIR_IOPN_2 SIR_IOPR1B SIR_IOPR_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Froduct Type SIR_IOP_2 Froduct Type SIR_IOP_2	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24	0 0 0 23 0 54 MVIOEPFDNCDF 28 RPEPOPFDPLRN 19 RSWHOEPFDNCI 29	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INVIOEPNCDF PEPOPFDSINNCDF 8 ISWHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 111	SCSTODH 0	EPFDNCDF CDF	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18 RSSHAOFDNCD 29	PPLRMNCCIF 2 DF F	RBSZOPe 29	
SIR_IOPM1B SIR_IOPM2 SIR_IOPM2 SIR_IOPN2 SIR_IOPN1B SIR_IOPR1B SIR_IOPR1B SIR_IOPR2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Froduct Type SIR_IOP_2 SIR_IOP_3 Froduct Type SIR_IOP_3 SIR_IOP_3	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24 - Test name BurstCounterStep20H	0 0 0 23 0 54	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INIOEPNCDF PEPOPFDSINNCDF SINHOEPFDPLRMNCDF	SOOHHIFHD 0 0 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 11 - Details The burst counter should	SCSTODH 0	EPFDNCDF CDF NCDF	SCSTODNCDF 0 0 2 0 110 0 RBSZOPOEPFD 18 RSSHAOFDNCD 29 -	DPLRMNCD F F 1 1	RBSZOPe 29 RSSHAO 18	FDPLRMNCDF
SIR_IOPM1B SIR_IOPM2 SIR_IOPM2 SIR_IOPN2 SIR_IOPN1B SIR_IOPR1B SIR_IOPR1B SIR_IOPR2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Product Type SIR_IOP_2 Froduct Type SIR_IOP_2 Froduct Type SIR_IOP_2 SIR_IOP_3 Froduct Type SIR_IOP_3 SIR_IOP_3	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24 -	0 0 0 23 0 54	0 1 1 0 1 1 0 0 1 1 1 0 0 1 1 1 1 1 1 1	INIOEPNCDF PEPOPFDSINNCDF SINHOEPFDPLRMNCDF	SOOHHIFHD 0 0 0 1 1 0 3 MYIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 11	SCSTODH 0	EPFDNCDF CDF NCDF	SCSTODNCDF 0 0 2 0 110 0 RBSZOPOEPFD 18 RSSHAOFDNCD 29 -	DPLRMNCD F F 1 1	RBSZOPe 29 RSSHAO 18	FDPLRMNCDF
SIR_IOPM1B SIR_IOPM2 SIR_IOPM2 SIR_IOPN2 SIR_IOPN2 SIR_IOPR1B SIR_IOPR2 Product Type SIR_IOP 2 Product Type SIR_IOP 2 Product Type SIR_IOP 2 Product Type SIR_IOP 2 Froduct Type SIR_IOP 2 Product Type SIR_IOP 2 Product Type SIR_IOP 2 Product Type SIR_IOP 2 ONLY Type SIR_IOP 2 Fest Description Key: Abbreviation BCSHNCDF OHHMOOR	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24 BurstCounterStep20H IndexOf1Hzin20HzMa	0 0 0 23 0 54	0 1 1 0 0 1 1 1 0 0 2 2 2 1 2 1 2 1 2 1	INIOEPNCDF PEPOPFDSINNCDF SINHOEPFDPLRMNCDF	SOOHHIFHD 0 0 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 11 - Details The burst counter should	SCSTODHI 0 0 141 0 145 0 RBSZOPO 29 RSSBCON 15 SPHLPQW 29	EPFDNCDF CDF NCDF with regard to the nents should be	SCSTODNCDF 0 0 2 0 10 0 18BSZOPOEPFD 18 RSSHAOFDNCD 29	DPLRMNCÜF 2 DF F 1	RBSZOPO 29 RSSHAO 18	FDPLRMNCDF
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SIR_IOPM1B SIR_IOPM1B SIR_IOPM_2 SIR_IOPM_2 SIR_IOPN_2 SIR_IOPN_1B SIR_IOPN_2 SIR_IOPR_1B SIR_IOPR_2 Product Type SIR_IOP_2 RESUP_IOP_2 Product Type SIR_IOP_2 Product Type SIR_IOP_2 RESUP_IOP_2 Product Type SIR_IOP_2 RESUP_IOP_IOP_IOP_IOP_IOP_IOP_IOP_IOP_IOP_IO	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24	0 0 0 0 23 0 0 54	DF R ASINNCDIR ingPolarFD2 ingPolarFD2 ingPolarNett etCDF SARNetCDF sARNetCDF etCDF	INIOEPNCDF PEPEPPEDSINNCDF SISWHOEPFDPLRMNCDF O ENERGY OF THE PERENCE OF THE	SOOHHIFHD 0 0 1 0 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 11	SCSTODH 0 0 141 0 145 0 RBSZOPO 29 RSSBCON 15 SPHLPQW 29	with regard to the ments should be et for surface type to the tween 700 and between 700 and between 700 and between 700 and between 700 and to adding tide height of 5000 (or miss of 15000 (or	SCSTODNCDF 0 0 2 0 10 0 110 0 RBSZOPOEPFD 18 RSSHAOFDNCD 29	DPLRMNCD F	RBSZOPe 29 RSSHAO 18 -70 and type = oc type = oc and 40mior latitude for latitude f	ples - 1) 70 degrees 70 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 27 degrees 28 degrees 29 degrees 29 degrees 20 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 27 degrees 28 degrees 29 degrees 20 degrees 20 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 26 degrees 27 degrees 28 degrees 29 degrees 29 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 26 degrees 26 degrees 27 degrees 28 degrees 2
SIR_IOPM1B SIR_IOPM1B SIR_IOPM_2 SIR_IOPM_2 SIR_IOPM_2 SIR_IOPN_2 SIR_IOPR_1B SIR_IOPR_2 Product Type SIR_IOP_2 PRODUCT Type SIR_IOP_1 PRODUCT Type	0 30 0 22 0 38 IOHHMOOR 15 RNELPOTONCDF 2 RSSHAONCDF 24 Test name BurstCounterStep20H IndexOf1Hzin20HzMa MissingValueIntOcear MissingValueIntOcear MissingValueIntOcear RangeBackscatterSig RangeBackscatterSig RangeBackscatterSig RangePackinessExclt RangePeakinessExclt	0 0 0 0 23 0 0 54	DF R 2: MSINNCDIR 2: DF R 2: DF R 2: MSINNCDIR 3: DF R 3: 4:	INIOEPNCDF PEPEPPEDSINNCDF SISWHOEPFDPLRMNCDF O ENERGY OF THE PERENCE OF THE	SOOHHIFHD 0 0 1 0 1 0 3 MVIONCDF 3 RPEPOPSINNCDF 25 RSWHOEPNCDF 11	SCSTODHI 0 0 141 0 145 0 RBSZOPO 29 RSSBCON 15 SPHLPQW 29	with regard to the ments should be et for surface type of for surface type the tween 700 and the tween	SCSTODNCDF 0 0 2 0 10 0 RBSZOPOEPFD 18 RSSHAOFDNCD 29	poperation of 1 counter (number of 1 des between des between) for surface veen -40mm veen -40mm veen -ecean for veen -ecean for	RBSZOPP 29 RSSHAO 18	ples - 1) 70 degrees 70 degrees 20 degrees 20 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 27 degrees 28 degrees 29 degrees 20 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 27 degrees 26 degrees 27 degrees 28 degrees 29 degrees 20 degrees 20 degrees 20 degrees 20 degrees 20 degrees 21 degrees 22 degrees 23 degrees 24 degrees 25 degrees 26 degrees 26 degrees 27 degrees 28 degrees 2

RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

7.3 Missing QCC Reports

Number of products with missing QCC reports:

L1B and L2 Product name n/a

P2P Product name
CS_OFFL_SIR_IOP_2_20221218T232530_20221219T001509_C002