

1. Overview

Report Production:	28-Feb-2023
Processor Used:	CryoSat Ocean Processor
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data

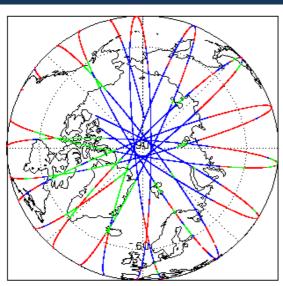
We would love to hear from you!

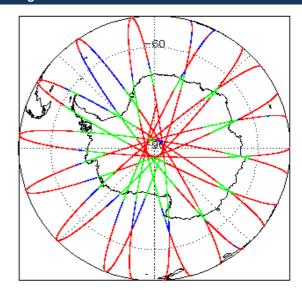
Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2_qc_team@telespazio.com

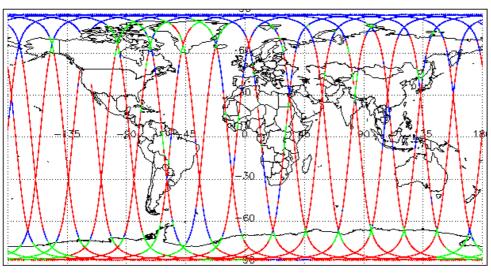
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary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

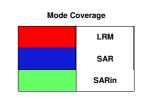
Mission / Instru	iment News
21-Feb-2023	None
22-Feb-2023	None
23-Feb-2023	Nothing planned

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

4. 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:

(

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:

0

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:

13

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20230222T060126_20230222T060836_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20230222T210024_20230222T212630_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T023825_20230222T023912_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T104441_20230222T104538_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T105514_20230222T105633_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T135925_20230222T140017_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T140058_20230222T140509_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230222T181616_20230222T182040_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230222T031033_20230222T031734_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230222T122229_20230222T123634_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230222T141614_20230222T141707_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230222T171314_20230222T171416_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230222T171602_20230222T171733_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:

C

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:

54

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230222T072251_20230222T072349_C001	IIVIean Livnamic Lonography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPM_2_20230222T103334_20230222T103443_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_20230222T000355_20230222T000700_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_20230222T013657_20230222T014002_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_20230222T014255_20230222T014636_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_20230222T031734_20230222T032008_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_20230222T041244_20230222T041403_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_20230222T045242_20230222T045849_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_20230222T055218_20230222T055427_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_20230222T063458_20230222T063633_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_20230222T064526_20230222T064728_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_20230222T073132_20230222T073618_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_20230222T082316_20230222T082544_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_20230222T095414_20230222T095806_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_20230222T104441_20230222T104538_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_20230222T113359_20230222T113713_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_20230222T114228_20230222T114340_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_20230222T131124_20230222T131546_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_20230222T132131_20230222T132251_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_20230222T135925_20230222T140017_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_20230222T145906_20230222T150054_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_20230222T154313_20230222T154414_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_20230222T172108_20230222T172319_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_20230222T180718_20230222T180936_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_20230222T181616_20230222T182040_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_20230222T185751_20230222T190143_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_20230222T194737_20230222T195009_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_20230222T195732_20230222T195915_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_20230222T222516_20230222T222540_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_20230222T230640_20230222T230758_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_20230222T231330_20230222T231647_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_20230222T004649_20230222T005348_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_20230222T005348_20230222T005530_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_20230222T022804_20230222T023246_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_20230222T023246_20230222T023405_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_20230222T040614_20230222T041127_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_20230222T041127_20230222T041244_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_20230222T054804_20230222T054831_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_20230222T054831_20230222T055218_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_20230222T072408_20230222T073132_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_20230222T090208_20230222T091204_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_20230222T103443_20230222T103621_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_20230222T104538_20230222T105327_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_20230222T122229_20230222T123634_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_20230222T140509_20230222T141231_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_20230222T154414_20230222T154944_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_20230222T171314_20230222T171416_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_20230222T172319_20230222T173012_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_20230222T190143_20230222T190655_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_20230222T190729_20230222T190900_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_20230222T203926_20230222T204715_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_20230222T221746_20230222T222516_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_20230222T223427_20230222T223623_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_20230222T235253_20230223T000321_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:

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.

89

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 20230221T235837 20230222T000354 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 20230222T000920 20230222T003207 C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20230222T003453_20230222T004421_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH CS OFFL SIR IOPM 2 20230222T005615 20230222T005641 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 20230222T005717 20230222T010027 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, SWF CS_OFFL_SIR_IOPM_2_20230222T011534_20230222T012059_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 20230222T012247 20230222T013609 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 20230222T014859 20230222T021613 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 20230222T021753 20230222T022113 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_20230222T023912_20230222T024602_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_20230222T024616_20230222T031033_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 20230222T032009 20230222T032203 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_20230222T032427_20230222T032654_C001 scatter 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 CS_OFFL_SIR_IOPM_2_20230222T032834_20230222T033328_C001 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 CS_OFFL_SIR_IOPM_2_20230222T033420_20230222T034518_C001 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_20230222T034527_20230222T035602_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_20230222T040442_20230222T040448_C001 Backscatter Quality 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 20230222T041925 20230222T042137 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 CS_OFFL_SIR_IOPM_2_20230222T042323_20230222T043509_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 and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20230222T044401 20230222T045242 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 20230222T045850 20230222T050120 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 20230222T050145 20230222T050611 C001 Backscatter Quality 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_20230222T050751_20230222T052256_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

CS_OFFL_SIR_IOPM_2_20230222T052436_20230222T052908_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_20230222T053452_20230222T053830_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_20230222T060126_20230222T060836_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_20230222T060959_20230222T063410_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_20230222T063633_20230222T064526_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_20230222T064733_20230222T071127_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_20230222T073837_20230222T081323_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_20230222T081851_20230222T082316_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_20230222T082605_20230222T085427_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_20230222T092026_20230222T092312_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_20230222T092344_20230222T095247_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_20230222T095806_20230222T100355_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_20230222T100521_20230222T102228_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_20230222T105633_20230222T113137_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_20230222T113713_20230222T114228_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_20230222T114406_20230222T114712_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_20230222T114912_20230222T115249_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_20230222T121945_20230222T122229_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_20230222T123634_20230222T124519_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_20230222T124804_20230222T131026_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_20230222T131546_20230222T131715_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_20230222T132341_20230222T133639_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_20230222T133827_20230222T134544_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_20230222T134640_20230222T135046_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_20230222T135735_20230222T135831_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_20230222T141707_20230222T142048_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

CO OFFILER LOPM 2 2000022114094 (200022114094 CO) CO OFFILER LOPM 2 2000022114094 (2000222114094 CO) CO OFFILER LOPM 2 200002211409	CS_OFFL_SIR_IOPM_2_20230222T142227_20230222T144919_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
Company	CS_OFFL_SIR_IOPM_2_20230222T145046_20230222T145614_C001	3,	
Sec. OFFL. SRIL 10PM 2. 20000022119319 200222119378 CIBI	CS_OFFL_SIR_IOPM_2_20230222T145634_20230222T145906_C001		
Second S	CS_OFFL_SIR_IOPM_2_20230222T150350_20230222T150408_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Col. CPFL_SR_LOPM_2_10200227116419_0030227116419_0031 Col. CPFL_SR_LOPM_2_10200227116419_0030227116419_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116140_0031 Col. CPFL_SR_LOPM_2_10200227116449_0030227116349_00302227116349_0030227116349_0030227116349_0030227116349_0030227116349_003022727116349_00303272711634	CS_OFFL_SIR_IOPM_2_20230222T150717_20230222T151947_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Description of the company of the co	CS_OFFL_SIR_IOPM_2_20230222T152015_20230222T153730_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
OS_OFFL_SIR_IOPM_2_20202227119349_20202227119312_000000000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20230222T154121_20230222T154313_C001	3,	
and Backscatter Cuality, COCO. Almineter Range and Backscatter Cuality Riga have been self cort on a rorn exceeds CS_OFFL_SIR_IOPM_2_202002271160514_202002271161512_CO01 CS_OFFL_SIR_IOPM_2_202002271160532_202002271160532_CO010027176054_CO01 CS_OFFL_SIR_IOPM_2_202002271160532_202002271160532_CO0100271760532_CO0100271760532_CO010027760534_CO01 CS_OFFL_SIR_IOPM_2_202002271160532_C02002271160532_CO010027760534_CO01 CS_OFFL_SIR_IOPM_2_202002271160532_C02002271160530_CO01 CS_OFFL_SIR_IOPM_2_202002271160531_C020022717208_CO01 CS_OFFL_SIR_IOPM_2_202002271170115_20200222717208_CO01 CS_OFFL_SIR_IOPM_2_202002271170115_C000022717208_CO01 CS_OFFL_SIR_IOPM_2_20200227170115_C000022717208_CO01 CS_OFFL_SIR_IOPM_2_20200227170115_C0000227172458_CO01 CS_OFFL_SIR_IOPM_2_20200227170115_C0000227172458_CO01 CS_OFFL_SIR_IOPM_2_2020022717000027172458_CO01 CS_OFFL_SIR_IOPM_2_2020022717000027170000271700000000000	CS_OFFL_SIR_IOPM_2_20230222T155946_20230222T161040_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscaler Quality for one or more records CS_OFFL_SIR_IOPM_2_20200222T163533_202022T163514_C001 CS_OFFL_SIR_IOPM_2_2020022T163513_2020022T163713_C001 CS_OFFL_SIR_IOPM_2_2020022T164419_2022022T16500_C001 Allmeter Range Cuality, COOG Allmeter Range Cuality, COOG Allmeter Range and Backscaler Quality Flags have been set to one or more records CS_OFFL_SIR_IOPM_2_2020022T164419_2022022T16500_C001 Allmeter Range and Backscaler Quality CS_OFFL_SIR_IOPM_2_2020022T1764419_2022022T175500_C001 CS_OFFL_SIR_IOPM_2_2020022T1764419_2022022T175450_C001 CS_OFFL_SIR_IOPM_2_2020022T1776448_202022T1773450_C001 CS_OFFL_SIR_IOPM_2_2020022T177648_20010 CS_OFFL_SIR_IOPM_2_2020022T177649_20010 CS_OFFL_SIR_IOPM_2_2020022T177649_20010 CS_OFFL_SIR_IOPM_2_2020022T177649_20010 CS_OFFL_SIR_IOPM_2_2020022T1777649_20010 CS_OFFL_SIR_IOPM_2_2020022T17777649_20010 CS_OFFL_SIR_IOPM_2_2020022T17777777777777777777777777777777	CS_OFFL_SIR_IOPM_2_20230222T161243_20230222T162832_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Cuality CS_OFFL_SIR_IOPM_2_20230222T16951_2023022T169713_C001 CS_OFFL_SIR_IOPM_2_20230222T169551_2023022T169713_C001 CS_OFFL_SIR_IOPM_2_20230222T17115_20230222T169713_C001 CS_OFFL_SIR_IOPM_2_20230222T17115_20230222T17236_C001 CS_OFFL_SIR_IOPM_2_20230222T17115_20230222T17236_C001 CS_OFFL_SIR_IOPM_2_20230222T17345_20230222T17349_C001 CS_OFFL_SIR_IOPM_2_20230222T17349_C0030222T17349_C001 CS_OFFL_SIR_IOPM_2_20230222T17349_C0030222T17349_C001 CS_OFFL_SIR_IOPM_2_20230222T17349_C0030222T180712_C001 CS_OFFL_SIR_IOPM_2_20230222T173698_20230222T180712_C001 CS_OFFL_SIR_IOPM_2_20230222T180749_C0030222T180749_C001 CS_OFFL_SIR_IOPM_2_20230222T180749_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C003022T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C003022T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C003022T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C003022T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T19449_C003022T195732_C001 CC_OCA Altimeter Range Cuality, COOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CC_OCA Altimeter Range and Backscatter Quality Flags have been set for one or more records CC_OFFL_SIR_IOPM_2_20230222T19449_C003022T195732_C001 CC_OCA Altimeter Range Cuality, COOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CC_OCA Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPM_2_20230222T163014_20230222T163512_C001		
Backscatter Quality CS_OFFL_SIR_JOPM_2_20230222T164419_20230222T165533_C001 Ocean Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T175445_20230222T173456_C001 Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T175208_20230222T180712_C001 Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T180937_20230222T180712_C001 Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T180937_20230222T185511_C001 Ocean Altmeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T180941_20230222T185511_C001 Ocean Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T180941_20230222T194315_C001 Ocean Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T195009_20230222T195342_C001 Ocean Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T195009_20230222T19532_C001 OCEAN Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20230222T195009_20230222T19532_C001 OCEAN Altmeter Range, SSHA, SWH and Backscatter Quality Flags have been set fo	CS_OFFL_SIR_IOPM_2_20230222T163533_20230222T163544_C001		
and Backscatter Quality, COG Allimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T170115_20230222T17236_C001 CS_OFFL_SIR_IOPM_2_20230222T173445_20230222T17236_C001 CS_OFFL_SIR_IOPM_2_20230222T173445_20230222T173456_C001 CS_OFFL_SIR_IOPM_2_20230222T180372_C001 CS_OFFL_SIR_IOPM_2_20230222T180372_C001 CS_OFFL_SIR_IOPM_2_20230222T180372_C001 CS_OFFL_SIR_IOPM_2_20230222T180403_20230222T180511_C001 CS_OFFL_SIR_IOPM_2_20230222T180403_20230222T18540_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T180002_20237195402_C001 CS_OFFL_SIR_IOPM_2_20230222T195400_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195000_20230222T195732_C001 CCCOA Allimeter Range Coullity, COCG Allimeter Range and Backscatter Quality Flags have been set for one or more records CCCOA Allimeter Range Coullity, COCG Allimeter Range and Backscatter Quality Flags have been set for one or more records CCCOA Allimeter Range Coullity, COCG Allimeter Range and Backscatter Quality Flags have been set for one or more records CCCOA Allimeter Range Coullity, COCG Allimeter Range and Backscatter Quality Flags have been set for one or more records CCCOA Allimeter Range Coullity, COCG Allimeter Range and Backscatter Quality Flags have been set for o	CS_OFFL_SIR_IOPM_2_20230222T163551_20230222T163713_C001		
and Backscatter Quality OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T173445_20230222T187458_C001 CS_OFFL_SIR_IOPM_2_20230222T175208_20230222T180712_C001 CS_OFFL_SIR_IOPM_2_2023022T180397_20230222T180712_C001 CS_OFFL_SIR_IOPM_2_20230222T180397_20230222T180712_C001 CS_OFFL_SIR_IOPM_2_20230222T180397_20230222T181426_C001 CS_OFFL_SIR_IOPM_2_20230222T180397_20230222T18151_C001 CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T185511_C001 CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T18511_C001 CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T18416_C001 CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194316_C001 CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194316_C001 CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194316_C001 CS_OFFL_SIR_IOPM_2_20230222T192331_20230222T194316_C001 CS_OFFL_SIR_IOPM_2_20230222T192331_2023022T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T192331_20230222T194316_C001 CS_OFFL_SIR_IOPM_2_20230222T194403_20230222T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T194008_20230222T1945342_C001 CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_2023022T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_2023022T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_20230222T195300_C001 CS_OFFL_SIR_IOPM_2_20230222T195099_2023022T195300_C001 C	CS_OFFL_SIR_IOPM_2_20230222T164419_20230222T165503_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T18093_2023022T180712_C001 CS_OFFL_SIR_IOPM_2_20230222T18093_20230230232T18093_20230232T18093_20230232T18093_20230232T18093_20230230232T18093_2023023718093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230232T18093_20230	CS_OFFL_SIR_IOPM_2_20230222T170115_20230222T171236_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality, CCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have been at the OCOG Altimeter Range and Backscatter Quality Flags have be	CS_OFFL_SIR_IOPM_2_20230222T173445_20230222T173458_C001		
Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T185511_C001 CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T194315_C001 CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194315_C001 CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194315_C001 CS_OFFL_SIR_IOPM_2_20230222T194403_20230222T194718_C001 CS_OFFL_SIR_IOPM_2_20230222T19403_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195002_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T195322_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T19530_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T12630_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T12630_C001 CS_OFFL_SIR_IOPM_2_20230222T1959951_20230222T212557_C001 CCOCA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T212557_C001 CCOCA Altimeter Range SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212557_C001 CCOCA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T212557_C001 CCOCA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T212557_C001 CCOCA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more re	CS_OFFL_SIR_IOPM_2_20230222T175208_20230222T180712_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20230222T19231_20230222T194315_C001 and Backscatter Quality, COCG Altimeter Range and Backscatter Quality	CS_OFFL_SIR_IOPM_2_20230222T180937_20230222T181426_C001		
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Bac	CS_OFFL_SIR_IOPM_2_20230222T182041_20230222T185511_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001 CS_OFFL_SIR_IOPM_2_20230222T195405_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195405_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195405_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T21024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T213257_C001 CCCCA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality CCCA Altimeter Range and Backscatter Quality Flags have been set for one or more records CCCA Altimeter Range and Backscatter Quality CCCA Altimeter Range and Backscatter Quality Flags have been set for one or more records CCCA Altimeter Range RSHA, SWH and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPM_2_20230222T192231_20230222T194315_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195732_C001 Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T195405_20230222T195732_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T202801_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 CCS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 CCCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records CCS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 CCCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality Flag	CS_OFFL_SIR_IOPM_2_20230222T194403_20230222T194718_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality Cs_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 Cs_OFFL_SIR_IOPM_2_20230222T2195951_20230222T202801_C001 Cs_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 Cs_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 Cs_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 Cs_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 Cs_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 Backscatter Quality for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPM_2_20230222T195009_20230222T195342_C001		
CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Set for one or more records CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 CS_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T213257_C001 and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T213257_C001 Coean 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_20230222T213941_20230222T21435_C001 The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 The OCOG Altimeter Range, SSHA, SWH 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_20230222T195405_20230222T195732_C001		
CS_OFFL_SIR_IOPM_2_20230222T210024_20230222T212630_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001 CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T213257_C001 and Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T21435_C001 and Backscatter Quality, OCOG	CS_OFFL_SIR_IOPM_2_20230222T195951_20230222T202801_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality for one or more records 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_20230222T210024_20230222T212630_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T221435_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_IOPM_2_20230222T212759_20230222T213257_C001		
	CS_OFFL_SIR_IOPM_2_20230222T213941_20230222T221435_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been

CS_OFFL_SIR_IOPM_2_20230222T223913_20230222T224049_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_20230222T230308_20230222T230616_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_20230222T230758_20230222T231329_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_20230222T231857_20230222T235253_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_20230222T181616_20230222T182040_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_20230222T191636_20230222T191757_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_20230222T010027_20230222T010408_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_20230222T014636_20230222T014719_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_20230222T063410_20230222T063458_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_20230222T104120_20230222T104156_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_20230222T141245_20230222T141258_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_20230222T164337_20230222T164419_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_20230222T194353_20230222T194403_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_20230222T221604_20230222T221629_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (20 Hz PLRM)

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

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

Number of products with errors:

80

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20230222T011247_20230222T011534_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_20230222T013657_20230222T014002_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_20230222T014255_20230222T014636_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_20230222T022746_20230222T022804_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_20230222T031734_20230222T032008_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_20230222T035746_20230222T035951_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_20230222T044022_20230222T044128_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_20230222T045242_20230222T045849_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_20230222T050611_20230222T050751_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_20230222T055218_20230222T055427_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_20230222T055528_20230222T055757_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_20230222T060004_20230222T060126_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_20230222T072116_20230222T072251_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_20230222T073132_20230222T073618_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_20230222T073715_20230222T073836_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_20230222T081744_20230222T081851_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_20230222T082316_20230222T082544_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_20230222T095414_20230222T095806_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_20230222T100356_20230222T100521_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_20230222T103957_20230222T104120_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_20230222T131124_20230222T131546_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_20230222T132131_20230222T132251_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_20230222T140058_20230222T140509_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_20230222T153736_20230222T153902_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_20230222T154945_20230222T155034_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_20230222T162832_20230222T163014_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_20230222T163713_20230222T163938_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_20230222T165751_20230222T165815_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_20230222T165815_20230222T170115_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_20230222T171733_20230222T172030_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_20230222T172108_20230222T172319_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_20230222T181616_20230222T182040_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_20230222T185554_20230222T185652_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_20230222T191636_20230222T191757_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_20230222T191857_20230222T192158_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_20230222T192225_20230222T192231_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for comore records
CS_OFFL_SIR_IOPN_2_20230222T194737_20230222T195009_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_IOPN_2_20230222T213633_20230222T213811_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 lead for one or more records
CS_OFFL_SIR_IOPN_2_20230222T221435_20230222T221554_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_IOPN_2_20230222T221637_20230222T221746_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_IOPN_2_20230222T224049_20230222T224155_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_IOPN_2_20230222T224456_20230222T224635_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_IOPN_2_20230222T224651_20230222T225025_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_IOPN_2_20230222T230640_20230222T230758_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_IOPN_2_20230222T231330_20230222T231647_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_20230222T004630_20230222T004645_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_20230222T004649_20230222T005348_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_20230222T005348_20230222T005530_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_20230222T022627_20230222T022746_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_20230222T023246_20230222T023405_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_20230222T040614_20230222T041127_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_20230222T041127_20230222T041244_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_20230222T052908_20230222T053145_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_20230222T054831_20230222T055218_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_20230222T055757_20230222T055838_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_20230222T072408_20230222T073132_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_20230222T081323_20230222T081435_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_20230222T090208_20230222T091204_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_20230222T103155_20230222T103315_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_20230222T103443_20230222T103621_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_20230222T104120_20230222T104156_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_20230222T104538_20230222T105327_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_20230222T115249_20230222T115828_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_20230222T122229_20230222T123634_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_20230222T140509_20230222T141231_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_20230222T154414_20230222T154944_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_20230222T155542_20230222T155628_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_20230222T155632_20230222T155639_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_20230222T163938_20230222T164233_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_20230222T171314_20230222T171416_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_20230222T172319_20230222T173012_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_20230222T174353_20230222T175208_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_20230222T190143_20230222T190655_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_20230222T190729_20230222T190900_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_20230222T203926_20230222T204715_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_20230222T221630_20230222T221637_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_20230222T221746_20230222T222516_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_20230222T222540_20230222T222729_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_20230222T222731_20230222T223042_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_20230222T235253_20230223T000321_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)

 $\label{lem:currently} \textbf{Currently, there are several common flags raised in the Level 2 products, which are summarised below.}$

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

Number of products with errors:

L2 Retracking Flags (20 Hz PLRM)

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

> Ocean Retracking Quality Flag (PLRM): This flag is currently set for products 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:

13

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

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

Number of products with errors:

0

6.2 P2P Product Header Analysis

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

Number of products with errors:

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.
- > 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_20230222T000256_20230222T005234_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_20230222T005234_20230222T014211_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_20230222T014211_20230222T023149_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_20230222T023149_20230222T032125_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_20230222T032125_20230222T041103_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_20230222T041103_20230222T050040_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_20230222T050040_20230222T055018_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_20230222T055018_20230222T063955_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_20230222T063955_20230222T072933_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_20230222T072933_20230222T081910_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_20230222T081910_20230222T090848_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_20230222T090848_20230222T095824_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_20230222T095824_20230222T104802_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_20230222T104802_20230222T113739_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_20230222T113739_20230222T122717_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOP_2_20230222T122717_20230222T131654_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_20230222T131654_20230222T140632_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_20230222T140632_20230222T145608_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_20230222T145608_20230222T154546_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_20230222T154546_20230222T163523_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_20230222T163523_20230222T172501_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_20230222T172501_20230222T181438_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_20230222T181438_20230222T190416_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_20230222T190416_20230222T195353_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_20230222T195353_20230222T204331_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_20230222T204331_20230222T213307_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_20230222T213307_20230222T222245_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_20230222T222245_20230222T231222_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_20230222T231222_20230223T000200_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)

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:

(

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: 27

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: 29

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: 29

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	207	207	5	202	0
SIR_IOPR1B	158	103	1	102	0
SIR_IOPN1B	103	158	0	158	0
SIR_IOPM_2	207	207	146	61	0
SIR_IOPR_2	158	103	40	63	0
SIR_IOPN_2	103	158	77	80	1
SIR IOP P2P	29	29	0	28	1

7.1 QCC Errors

Number of QCC reports with errors:

Product Type | RLOBOPNCDF | RL

8

RLOBOPNCDF

Total number	of occurrences	of each error				
-	-	-	-	-	-	-

SIR_IOPR_	2 1		1	1	1							
Product Typ	e RLOBOPNO	CDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2	_ 1		1	1	1							

Test Description Key:		
Abbreviation	Test name	Details
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7

Number of QCC reports with warnings

2171

Total number of occurrences of each warning

Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_IOPM1B	202	0	0	0	0	0	0
SIR_IOPM_2	0	0	42	40	0	46	0
SIR_IOPN1B	101	0	0	0	0	0	0
SIR_IOPN_2	0	0	6	28	2	19	25
SIR_IOPR1B	152	0	0	0	0	0	0
SIR_IOPR_2	0	1	17	32	0	23	14

Product Type	RBSZOPOEPNCDF	RLPTONCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	38	4	1	39	0	0	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	13	32	1	0	0	9	0
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	9	38	6	0	33	0	37

Product Type	RPEPOPFDSINNCDF	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	28	0	0	2	28	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	26	0	0	21	21	44	53
SIR_IOPR1B	0	0	0	0	0	0	0
SIR IOPR 2	0	0	31	0	2	51	31

Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF
SIR_IOPM1B	0	0	0	0	1	0	0
SIR_IOPM_2	5	32	0	2	1	0	0
SIR_IOPN1B	0	0	0	0	0	0	45
SIR_IOPN_2	34	24	24	7	0	0	0
SIR_IOPR1B	0	0	0	0	0	0	158
SIR_IOPR_2	8	27	36	5	1	4	0

Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCE	RBSZOPOEPNCDF
SIR_IOP_2_	16	29	28	1	29	16	28

Product Type	RLPTONCDF	RNELPOTONCDF	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF
SIR_IOP_2_	28	6	13	27	17	15	28
	•				•		•
Product Type	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-
Product Type SIR_IOP_2_	RSSHAOFDPLRMNCDF 17	RSSHAONCDF 26	RSWHOEPFDNCDF 28	RSWHOEPFDPLRMNCDF		SPHLPQWNCDF	-

Product Type	•	-	•	-	-	•	-
SIR_IOP_2_							

'est Description Key:					
Abbreviation	Test name	Details			
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter			
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)			
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees			
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees			
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only			
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RLPTONCDF	RangeLongPeriodTideOceanNetCDF	The Long period tide height should be between -50mm and 50mm (or missing) for surface type = ocean - NetCDF			
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean			
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean			
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)			
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample			
		•			

SCSTODHRNCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter SequenceCounterStepTODHRNetCDF

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0