

### 1. Overview

| Report Production: | 11-Jan-2023  |
|--------------------|--|
| Processor Used:    | CryoSat Ocean Processor                                      |
| Data Used:         | Near Real Time Ocean Products (NOP)<br>L1B & L2 Science Data |

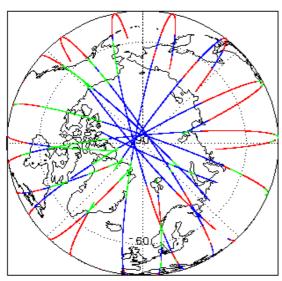
#### We would love to hear from you!

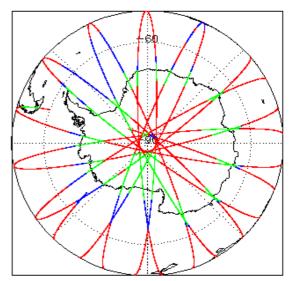
Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2\_qc\_team@telespazio.com

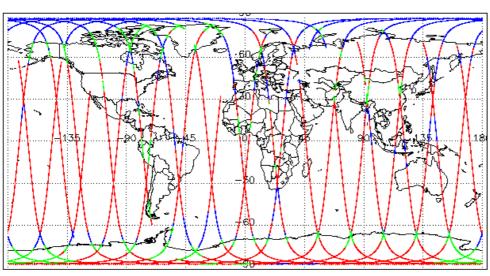
| Check                                     | L1 & L2                      |
|---|------------------------------|
| Server check: science-pds.cryosat.esa.int | Nominal                      |
| Server check: calval-pds.cryosat.esa.int  | Nominal                      |
| Product Software Check        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

| Mis | Mission / Instrument News |                 |  |
|-----|---------------------------|-----------------|--|
| 0   | 09-Jan-2023               | None            |  |
| 1   | 10-Jan-2023               | None            |  |
| 1   | 11-Jan-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      |
|-----------------------------|----------------|
| Star Tracker(s) in use:     | Star Tracker 1 |

### 4. NOP Level 1B Data Quality Check

## 4.1 L1B Product Format Check

#### 4.2 L1B Product Header Analysis

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

> L1B Processing Quality HR: The I1b\_proc\_flag\_hr flag is currently set all L1B NOPR and NOPN products because the I1b\_processing\_quality\_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

#### 4.3 L1B Auxilary Data File Usage Check

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

> Dynamic Atmospheric Correction: The DAC is missing in all products because the auxiliary files required are not available in time for processing. This known and expected behaviour.

Number of products with errors:

#### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

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#### 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 NOPR products due to a configuration issue. The attitude correction is not actually missing, This is being investigated and will be updated in the next SW update.

Number of products with errors:

| Product   | Test Failed         | Description  |
|---|---------------------|--|
| CS_OFFL_SIR_NOPM1B_20230110T191112_20230110T192133_C001 | Power scaling error | There is an error in the scaling of the L1B waveform for one or more records |

### 4.6 L1B Waveform Group Data Check

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

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

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Number of products with errors:

| Product   | Test Failed  | Description  |
|---|--------------|--|
|   |              | Description  |
| CS_OFFL_SIR_NOPM1B_20230110T011045_20230110T011802_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20230110T113610_20230110T120441_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20230110T195827_20230110T200633_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T003539_20230110T003654_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T054321_20230110T054441_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T063649_20230110T063745_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T081551_20230110T081739_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T090149_20230110T090658_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T140310_20230110T140641_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T153259_20230110T153540_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T171339_20230110T171442_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T185142_20230110T185319_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20230110T234340_20230110T234753_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20230110T035235_20230110T035432_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20230110T073143_20230110T073246_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20230110T171442_20230110T172155_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20230110T172422_20230110T172934_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20230110T201644_20230110T201805_C001 | Loss of Echo | The tracking echo is missing for one or more records |

### 5. NOP Level 2 Data Quality Check

## 5.1 L2 Product Format Check

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

Number of products with errors:

0

#### 5.2 L2 Product Header Analysis

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

Number of products with errors:

### 5.3 L2 Auxiliary Data File Usage Check

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

Wind Model File Usage: This file is currently not included in all L2 products.

Number of products with errors:

## 5.4 L2 Auxiliary Correction Error Check

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

Currently, there are some common auxiliary correction errors raised in the Level 2 products 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.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors:

50

| Product   | Test Failed   | Description  |
|---|---|--|
| CS_OFFL_SIR_NOPM_2_20230110T184507_20230110T184533_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |
| CS_OFFL_SIR_NOPM_2_20230110T222015_20230110T222101_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T012742_20230110T012903_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T013431_20230110T013744_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T030713_20230110T030827_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)   | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T031329_20230110T031647_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T044805_20230110T045041_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T045234_20230110T045900_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T054321_20230110T054441_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT)  | There is an error with the MSS height (solution 1), the Mean Dynamic<br>Topography height (solution 1) and the Total Geocentric Ocean Tide<br>height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_NOPN_2_20230110T062555_20230110T062938_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T063649_20230110T063745_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T072235_20230110T072341_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T080537_20230110T080734_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T090149_20230110T090658_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic<br>Topography (solution 1) and the tidal corrections for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T094511_20230110T094629_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T112640_20230110T112837_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T130423_20230110T130746_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)   | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T131311_20230110T131428_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T144324_20230110T144644_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T145203_20230110T145326_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T153259_20230110T153540_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic<br>Topography (solution 1) and the tidal corrections for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T163041_20230110T163209_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T171339_20230110T171442_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T175857_20230110T180034_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T180759_20230110T181002_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)   | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T185319_20230110T185357_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T195453_20230110T195826_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |

| CS_OFFL_SIR_NOPN_2_20230110T202728_20230110T203229_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
|---|--|---|
| CS_OFFL_SIR_NOPN_2_20230110T212729_20230110T212938_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001 | Mean Sea Surface (1), Total Geocentric<br>Ocean Tide (GOT) | There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T004945_20230110T005203_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T005542_20230110T005728_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T062451_20230110T062555_C001 | Mean Sea Surface (1)                                       | There is an error with the MSS height (solution 1) for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T065506_20230110T065601_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T071550_20230110T071744_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T073143_20230110T073246_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T103704_20230110T104209_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)          | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T120504_20230110T120537_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T121056_20230110T121236_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T121425_20230110T122412_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T135450_20230110T140310_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)          | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T153540_20230110T154301_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T171442_20230110T172155_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T185357_20230110T190040_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T203230_20230110T203751_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)       | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T221053_20230110T221829_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)          | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |
| CS_OFFL_SIR_NOPR_2_20230110T221829_20230110T222015_C001 | Mean Dynamic Topography (1)                                | There is an error with the Mean Dynamic Topography height for one or more records   |
| CS_OFFL_SIR_NOPR_2_20230110T234753_20230110T235533_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1)          | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records          |

## 5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

| Product   | Test Failed         | Description   |
|---|---------------------|---|
| CS_OFFL_SIR_NOPM_2_20230110T191112_20230110T192133_C001 | Power scaling error | There is an error in the scaling of the L2 waveform for one or more records |

## 5.6 L2 Measurement Quality Flag Check

### L2 Quality Flags (20 Hz)

CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record. The bit value of this flag indicates any problems when set.

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

Test Failed

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

Number of products with errors:

Product

Description

|   | T  | 1   |
|---|--|---|
| CS_OFFL_SIR_NOPM_2_20230110T000136_20230110T003538_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T004823_20230110T004945_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T012051_20230110T012214_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_NOPM_2_20230110T012413_20230110T012703_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_NOPM_2_20230110T012904_20230110T013430_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T014024_20230110T020412_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_NOPM_2_20230110T020518_20230110T021408_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_NOPM_2_20230110T024638_20230110T030619_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_NOPM_2_20230110T030827_20230110T031329_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T031933_20230110T035234_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_NOPM_2_20230110T041812_20230110T044107_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_NOPM_2_20230110T045918_20230110T051128_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_NOPM_2_20230110T051154_20230110T051509_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_NOPM_2_20230110T052137_20230110T053010_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_NOPM_2_20230110T053556_20230110T053604_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T054903_20230110T060543_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_NOPM_2_20230110T060754_20230110T062225_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_NOPM_2_20230110T063834_20230110T065100_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_NOPM_2_20230110T065148_20230110T065400_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_NOPM_2_20230110T065601_20230110T070523_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_NOPM_2_20230110T073347_20230110T074315_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_NOPM_2_20230110T075010_20230110T080440_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_NOPM_2_20230110T080734_20230110T081551_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T081808_20230110T083438_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_NOPM_2_20230110T083720_20230110T083931_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_NOPM_2_20230110T085026_20230110T085447_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
|   |  |   |

| CS_OFFL_SIR_NOPM_2_20230110T091651_20230110T094400_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_NOPM_2_20230110T094912_20230110T095419_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T095708_20230110T102228_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T105413_20230110T112150_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T112554_20230110T112639_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T112837_20230110T113439_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T113610_20230110T120441_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_NOPM_2_20230110T121236_20230110T121425_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T122743_20230110T130128_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T130746_20230110T131310_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T131511_20230110T132103_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_NOPM_2_20230110T135126_20230110T135450_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_NOPM_2_20230110T140726_20230110T141550_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T141835_20230110T144050_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T144755_20230110T145203_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T145405_20230110T150844_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T150854_20230110T151338_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_NOPM_2_20230110T154608_20230110T161931_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_NOPM_2_20230110T162159_20230110T162649_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T162709_20230110T163041_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T163749_20230110T170917_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_NOPM_2_20230110T172935_20230110T173631_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_NOPM_2_20230110T174112_20230110T174159_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_NOPM_2_20230110T174202_20230110T175845_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_NOPM_2_20230110T180035_20230110T180548_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T180608_20230110T180620_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
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| CS_OFFL_SIR_NOPM_2_20230110T181554_20230110T182928_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_NOPM_2_20230110T183308_20230110T184332_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_NOPM_2_20230110T190556_20230110T190615_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T191112_20230110T192133_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_NOPM_2_20230110T192313_20230110T193740_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T194000_20230110T194500_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T194507_20230110T194518_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T194525_20230110T194534_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T194539_20230110T194640_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T195334_20230110T195453_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPM_2_20230110T195827_20230110T200633_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_NOPM_2_20230110T201033_20230110T201521_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_NOPM_2_20230110T203859_20230110T204239_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T205412_20230110T211710_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_NOPM_2_20230110T212033_20230110T212418_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T213033_20230110T215818_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_NOPM_2_20230110T223104_20230110T225639_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_NOPM_2_20230110T225816_20230110T230333_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T230340_20230110T230706_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20230110T231039_20230110T234339_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_NOPN_2_20230110T003735_20230110T003852_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_NOPN_2_20230110T013431_20230110T013744_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_NOPN_2_20230110T062555_20230110T062938_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T145203_20230110T145326_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_NOPN_2_20230110T193812_20230110T193959_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality  | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality, OCOG<br>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_NOPN_2_20230110T230706_20230110T230829_C001 |   | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
|---|---|---|
| CS_OFFL_SIR_NOPR_2_20230110T004638_20230110T004822_C001 | and Backscatter Quality, OCOG                             | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20230110T053032_20230110T053035_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T053254_20230110T053303_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T091548_20230110T091650_C001 |   | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20230110T121425_20230110T122412_C001 |   | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20230110T154446_20230110T154448_C001 | OCOG Altimeter Range Quality, OCOG<br>Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T203810_20230110T203859_C001 | 0 ,,  | 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:

| Product   | Test Failed   | Description   |
|---|---|---|
| CS_OFFL_SIR_NOPN_2_20230110T003735_20230110T003852_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPN_2_20230110T011002_20230110T011045_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T012742_20230110T012903_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T022914_20230110T022920_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPN_2_20230110T023405_20230110T023556_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T024355_20230110T024536_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T045234_20230110T045900_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPN_2_20230110T054321_20230110T054441_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T063649_20230110T063745_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T072235_20230110T072341_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPN_2_20230110T072707_20230110T072859_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPN_2_20230110T074454_20230110T075009_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T080537_20230110T080734_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T081551_20230110T081739_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20230110T090149_20230110T090658_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |

| COUNTY FOR JUSTINESS 2000 INTERESS 2000 INTE | CS_OFFL_SIR_NOPN_2_20230110T095419_20230110T095702_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 |
|--|---|--|---|
| Sp. OFFL. SRIL NOPPL 2, 200011711909 200011717909 2000117 | CS_OFFL_SIR_NOPN_2_20230110T103501_20230110T103532_C001 | OCOG Altimeter Range Quality PLRM,   |   |
| SOUTH_SIRL_NOTH_2_2020110T10509_2020113T10509_0001  SOUTH_SIRL_NOTH_2_2020110T10509_000113T10509_0001  SOUTH_SIRL_NOTH_2_2020110T10509_000113T10509_000113T10509_0001  SOUTH_SIRL_NOTH_2_2020110T10509_000113T10509_0001  SOUTH_SI | CS_OFFL_SIR_NOPN_2_20230110T103644_20230110T103704_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| DOCAD Resident Coality  The Coast Alternative Residence Coality Flags  Alternative Residence Coality  Flags  Altern | CS_OFFL_SIR_NOPN_2_20230110T113439_20230110T113609_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| CS OFFL SR NOPN 2 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 0200110110982 02001101109882 02001101100982 02001101109882 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109893 02001101109993 02001101109993 02001101109893 0200110110999 | CS_OFFL_SIR_NOPN_2_20230110T151338_20230110T151703_C001 |  |   |
| CSC OFFL SIR NOPN 2 20200110T19850 2020110T19455 C001  CS OFFL SIR NOPN 2 20200110T19450 2020110T19455 C001  CS OFFL SIR NOPN 2 20200110T19450 2020110T19455 C001  CS OFFL SIR NOPN 2 20200110T19450 2020110T19450 C001  CS OFFL SIR NOPN 2 20200110T19450 20200110T19450 C001  CS OFFL SIR NOPN 2 202 | CS_OFFL_SIR_NOPN_2_20230110T153259_20230110T153540_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| SB_OFFL_SIR_NOPN_2_2020110T1703F2202010T17103F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T1703F2 (2020110T1703F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T1703F2 (2020110T180F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T19857 (2020110T180F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T100F3 (2020110T180F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T100F3 (2020110T180F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T100F3 (2020110T120F2 (2011)  SB_OFFL_SIR_NOPN_2_2020110T100F3 (2020110T120F3 (2011)  SB_OFFL_SIR_NOPN_2_2020110T100F3 (2020110T100F3 (2020110T100F3 (2020110T100F3 (2020110T100F3 (2020110T100F3 (2020110T100F3 (2020110T100F3 ( | CS_OFFL_SIR_NOPN_2_20230110T161958_20230110T162158_C001 |  |   |
| OCOS Establishment Range (SMA, SWH)  GE_OFFL_SIR_NOPN_2_20200110719639_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20201107196394_0001  GE_OFFL_SIR_NOPN_2_202001107196394_20001  GE_OFFL_SIR_NOPN_2_202001107196394_0001  GE_OFFL_SIR_NO | CS_OFFL_SIR_NOPN_2_20230110T170931_20230110T171035_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| SS OFFL SIR NOPN 2 20200110718439 2020110718039 C001  SG OFFL SIR NOPN 2 20200110718439 2020110718039 C001  SG OFFL SIR NOPN 2 20200110718439 2020110718039 C001  OCG Affireter Range and Backscatter Country Flags  The COCG Range and Backscatter Country Flags have been set for one or more records  The COCG Range and Backscatter Country Flags have been set for one or more records  The COCG Range and Backscatter Country Flags have been set for one or more records  The COCG Range and Backscatter Country Flags have been set for one or more records  The COCG Range and Backscat | CS_OFFL_SIR_NOPN_2_20230110T171339_20230110T171442_C001 |  |   |
| CS_OFFL_SIR_NOPN_2_20230110T184834_20230110T185319_C001  CS_OFFL_SIR_NOPN_2_20230110T18542_20230110T185319_C001  CS_OFFL_SIR_NOPN_2_20230110T189542_20230110T185319_C001  CS_OFFL_SIR_NOPN_2_20230110T189532_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T189532_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T189532_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T189532_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T28953_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T28953_20230110T191111_C001  CS_OFFL_SIR_NOPN_2_20230110T28953_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T280633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T280633_20230110T2010700534_C001  CS_OFFL_SIR_NOPN_2_20230110T280633_20230110T2010700534_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T280634_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T28063_20230110T220107_C001  CCG_OFFL_SIR_NOPN_2_20230110T28063_20230 | CS_OFFL_SIR_NOPN_2_20230110T175857_20230110T180034_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>PLRM                            | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| and Backscatter Quality PLRM, COOG Allimeter Range and Backscatter Quality Flags have been set for one or more records.  CS. OFFL SIR, NOPN 2. 202301107190830 202301107191111.0001  CS. OFFL SIR, NOPN 2. 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107190830 202301107200833 202301107200329 20001  CS. OFFL SIR, NOPN 2. 202301107200833 202301107200329 20001  CS. OFFL SIR, NOPN 2. 202301107200833 202301107200329 20001  CS. OFFL SIR, NOPN 2. 202301107204834 202301107203234 20001  CS. OFFL SIR, NOPN 2. 202301107204834 202301107203234 20001  CS. OFFL SIR, NOPN 2. 202301107204834 2023011072072030 20001  CS. OFFL SIR, NOPN 2. 202301107204834 2023011072072030 20001  CS. OFFL SIR, NOPN 2. 202301107204834 20230110720730 20001  CS. OFFL SIR, NOPN 2. 202301107204834 20230110720453 20001  CS. OFFL SIR, NOPN 2. 202301107204834 20230110722103 2001  CCC Allimeter Range Quality PLRM. COCO Backscatter Quality PLRM. COCO Backsc | CS_OFFL_SIR_NOPN_2_20230110T184834_20230110T184850_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| CS_OFFL_SIR_NOPN_2_20230110T196433_20230110T196828_C001  CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T20728_20230110T203229_C001  Alternative Range and Backscatter Quality PLRM. CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001  CCCG Alternative Range Quality PLRM. CCCG Backscatter Quality PLRM. CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for one or more records  CCCG Alternative Range and Backscatter Quality Flags have been set for on | CS_OFFL_SIR_NOPN_2_20230110T185142_20230110T185319_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| CS_OFFL_SIR_NOPN_2_20230110T200833_20230110T201033_C001  CS_OFFL_SIR_NOPN_2_20230110T200728_20230110T203229_C001  CS_OFFL_SIR_NOPN_2_20230110T202728_20230110T203229_C001  CS_OFFL_SIR_NOPN_2_20230110T202728_20230110T203229_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205224_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T205311_20230110T2201053_C001  CS_OFFL_SIR_NOPN_2_20230110T20511_20230110T2201053_C001  CS_OFFL_SIR_NOPN_2_20230110T20511_20230110T2201053_C001  CS_OFFL_SIR_NOPN_2_20230110T203114_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T203114_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T20314_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T20314_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T20314_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T20315_20230110T204836_C001  CS_OFFL_SIR_NOPN_2_20230110T20315_20230110T204836_C001  CS_OFFL_SIR_NOPN_2_20230110T20315_20230110T204836_C001  CS_OFFL_SIR_NOPN_2_20230110T20315_20230110T204836_C001  CS_OFFL_SIR_NOPR_2_20230110T03838_20230110T004826_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T004826_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T004826_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  COGG Balkecter Quality PLRM, COCGA Allimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T001121_C001  COGG Allimeter Range Code Quality PLRM, COCGA Allimeter Range Code Quality PLRM, COCGA Allimeter Range Code Quality PLRM, COCGA Allimeter Range and Backscatter Quality Plags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20230110T008838_20230110T00112740_C001  Allimete | CS_OFFL_SIR_NOPN_2_20230110T190830_20230110T191111_C001 |  |   |
| OCG Backscatter Quality  CS_OFFL_SIR_NOPN_2_20230110T202728_20230110T203229_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T203229_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T205231_20230110T205234_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T220107_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T220105_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001  CS_OFFL_SIR_NOPN_2_20230110T03853_20230110T04626_C001  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T04626_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T01121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T004262_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T001212_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T001212_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T001212_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T001212_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T0012742_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T00 | CS_OFFL_SIR_NOPN_2_20230110T195453_20230110T195826_C001 |  |   |
| and Backscatter Quality PLRM, OOOS Altimeter Range and Backscatter Quality PLRM, OOOS Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG A | CS_OFFL_SIR_NOPN_2_20230110T200633_20230110T201033_C001 |  |   |
| CS_OFFL_SIR_NOPN_2_20230110T20513_20230110T220107_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T220103_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001  CS_OFFL_SIR_NOPN_2_20230110T003853_20230110T004626_C001  Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and  | CS_OFFL_SIR_NOPN_2_20230110T202728_20230110T203229_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001  CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001  CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T2234753_C001  CS_OFFL_SIR_NOPN_2_20230110T0234340_20230110T234753_C001  CS_OFFL_SIR_NOPN_2_20230110T03853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T00121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T0101214_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T010123442_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T010123442_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T0023342_C001  OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records   | CS_OFFL_SIR_NOPN_2_20230110T204834_20230110T205234_C001 |  |   |
| OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  OCean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  OCEAN Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  OCEAN Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  OCGA Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCGA Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  OCGA Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  OCCG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  OCCG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records   | CS_OFFL_SIR_NOPN_2_20230110T215917_20230110T220107_C001 |  |   |
| CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001  CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001  CS_OFFL_SIR_NOPN_2_20230110T034340_20230110T034753_C001  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T001212_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T0023342_C001  CCOG Altimeter Range Quality PLRM, CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CCOG Altimeter Range Quality PLRM, COCG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOCG Altimeter Range Quality PLRM, CCOCG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCOCG Altimeter Range Quality PLRM, CCOCG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CCCCG Range and Backscatter Quality Flags have been set for one or more records  CCCCG Range and Backscatter Quality Flags have been set for one or more records  CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC   | CS_OFFL_SIR_NOPN_2_20230110T220511_20230110T221053_C001 |  |   |
| CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T023342_C001  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T025235_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OFFL_SIR_NOPR_2_20230110T023525_20230110T0235432_C001  CCCS_OF | CS_OFFL_SIR_NOPN_2_20230110T223014_20230110T223103_C001 |  |   |
| and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Plags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  OCGA Altimeter Range Quality PLRM, OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  The OCGA Range and Backscatter Quality Flags have been set for one or more records  | CS_OFFL_SIR_NOPN_2_20230110T234340_20230110T234753_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001  OCOG Backscatter Quality  | CS_OFFL_SIR_NOPR_2_20230110T003853_20230110T004626_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
| and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM oCOG Altimeter Range and Backscatter Quality PLRM oCOG Altimeter Range and Backscatter Quality PLRM.  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  | CS_OFFL_SIR_NOPR_2_20230110T005838_20230110T010121_C001 |  |   |
| OCOG Backscatter Quality more records  OCOG Backscatter Quality The OCOG Range and Backscatter Quality Flags have been set for one or  | CS_OFFL_SIR_NOPR_2_20230110T012703_20230110T012742_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality                                    | and the OCOG Altimeter Range and Backscatter Quality Flags have been  |
|  | CS_OFFL_SIR_NOPR_2_20230110T023151_20230110T023342_C001 |  |   |
|  | CS_OFFL_SIR_NOPR_2_20230110T035235_20230110T035432_C001 |  | , ,   |

|   | Ocean Altimeter Range, SSHA, SWH  | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags  |
|---|---|---|
| CS_OFFL_SIR_NOPR_2_20230110T044107_20230110T044805_C001 | and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>PLRM                                     | and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T053131_20230110T053234_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T060544_20230110T060753_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T071550_20230110T071744_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T072519_20230110T072706_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T072900_20230110T072954_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T083931_20230110T084137_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T090713_20230110T090954_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_NOPR_2_20230110T094400_20230110T094510_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T121056_20230110T121236_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T121425_20230110T122412_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T130128_20230110T130423_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T134753_20230110T135019_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T135450_20230110T140310_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_NOPR_2_20230110T144751_20230110T144754_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_NOPR_2_20230110T152713_20230110T153259_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_NOPR_2_20230110T153540_20230110T154301_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T154311_20230110T154324_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T171442_20230110T172155_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T172422_20230110T172934_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T182929_20230110T183019_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T183021_20230110T183308_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T184533_20230110T184833_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T185357_20230110T190040_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T201644_20230110T201805_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T202515_20230110T202728_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T203230_20230110T203751_C001  | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T203810_20230110T203859_C001  | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20230110T221053_20230110T221829_C001  | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T221829_20230110T2222015_C001 | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T230830_20230110T231038_C001  | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>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_NOPR_2_20230110T234753_20230110T235533_C001  | Ocean Altimeter Range, SSHA, SWH<br>and Backscatter Quality PLRM, OCOG<br>Altimeter Range and Backscatter Quality<br>PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |

#### L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

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

Number of products with errors:

186

## 5.7 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 falling at ocean/ land boundaries, but this is expected.

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 NOPR and NOPN products over sea ice, but this is to be expected.

Number of products with errors:

## 7. NOP 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_NOPM1B   | 177          | 177             | 2         | 175          | 0          |
| SIR_NOPR1B   | 132          | 132             | 0         | 132          | 0          |
| SIR_NOPN1B   | 95           | 95              | 1         | 94           | 0          |
| SIR_NOPM_2   | 177          | 177             | 125       | 52           | 0          |
| SIR_NOPR_2   | 132          | 132             | 56        | 76           | 0          |
| SIR NOPN 2   | 95           | 95              | 32        | 63           | 0          |

#### 7.1 QCC Errors

Number of QCC reports with errors:

0

### 7.2 QCC Warnings

Number of QCC reports with warnings

1731

#### Total number of occurrences of each warning

| Product Type | BCSHNCDF | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNCD | RBSZOPOEPNCDF |
|--------------|----------|--------------|------------|----------|-----------------|--------------------|---------------|
| SIR_NOPM1B   | 175      | 0            | 0          | 0        | 0               | 0                  | 0             |
| SIR_NOPM_2   | 0        | 39           | 42         | 1        | 41              | 0                  | 33            |
| SIR_NOPN1B   | 93       | 0            | 0          | 0        | 0               | 0                  | 0             |
| SIR_NOPN_2   | 0        | 14           | 34         | 7        | 28              | 24                 | 20            |
| SIR_NOPR1B   | 126      | 0            | 0          | 0        | 0               | 0                  | 0             |
| SIR_NOPR_2   | 0        | 24           | 43         | 0        | 25              | 18                 | 7             |

| Product Type | RPEPOPFDLRMNCDF | RPEPOPFDPLRMSARNO | DRPEPOPFDPLRMSINNCD | RPEPOPFDSARNCDF | RPEPOPFDSINNCDF | RPEPOPLRMNCDF | RPEPOPSARNCDF |
|--------------|-----------------|-------------------|---------------------|-----------------|-----------------|---------------|---------------|
| SIR_NOPM1B   | 0               | 0                 | 0                   | 0               | 0               | 0             | 0             |
| SIR_NOPM_2   | 34              | 0                 | 0                   | 0               | 0               | 23            | 0             |
| SIR_NOPN1B   | 0               | 0                 | 0                   | 0               | 0               | 0             | 0             |
| SIR_NOPN_2   | 0               | 0                 | 26                  | 0               | 31              | 0             | 0             |
| SIR_NOPR1B   | 0               | 0                 | 0                   | 0               | 0               | 0             | 0             |
| SIR NOPR 2   | 0               | 49                | 0                   | 56              | 0               | 0             | 49            |

| Product Type | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF |
|--------------|---------------|------------|--------------|------------------|------------|---------------|-------------------|
| SIR_NOPM1B   | 0             | 0          | 0            | 0                | 0          | 0             | 0                 |
| SIR_NOPM_2   | 0             | 4          | 24           | 0                | 4          | 33            | 0                 |
| SIR_NOPN1B   | 0             | 0          | 0            | 0                | 0          | 0             | 0                 |
| SIR_NOPN_2   | 30            | 11         | 47           | 47               | 27         | 28            | 30                |
| SIR_NOPR1B   | 0             | 0          | 0            | 0                | 0          | 0             | 0                 |
| SIR NOPR 2   | 0             | 5          | 52           | 34               | 12         | 25            | 49                |

| Product Type | RSWHOEPNCDF | SPHRTASCNSNCDF | SPHRTASCNSNCDF | SOOHHIFHD | SCSTODHRNCDF | SCSTODNCDF | • |
|--------------|-------------|----------------|----------------|-----------|--------------|------------|---|
| SIR_NOPM1B   | 0           | 0              | 1              | 0         | 0            | 0          |   |
| SIR_NOPM_2   | 1           | 0              | 1              | 0         | 0            | 0          |   |
| SIR_NOPN1B   | 0           | 0              | 0              | 0         | 45           | 0          |   |
| SIR_NOPN_2   | 15          | 1              | 0              | 1         | 0            | 0          |   |
| SIR_NOPR1B   | 0           | 0              | 0              | 0         | 132          | 7          |   |
| SIR NOPR 2   | 2           | 0              | 0              | 1         | 0            | 0          |   |

| ADDREVISION   Test name   Details  | Test Description Key: |   |  |
|--|-----------------------|---|--|
| BCSHNCDF  BurstCounterStep20hatNetCDF  MissingValueInOceanExcludingPoiarFD2NetCDF  The value should not be a 'missing value' for surface type 0 only for latitudes between 70 and 70 degrees  MINICEPPDNCDF  MissingValueInOceanExcludingPoiarFD2NetCDF  The value should not be a 'missing value' for surface type 0 only for latitudes between 70 and 70 degrees  MINICEPPDNCDF  MissingValueInOceanExcludingPoiarFD2NetCDF  The value should not be a 'missing value' for surface type 0 only for latitudes between 70 and 70 degrees  MINICEPPDNCDF  RangeBackscasterSigmaZeroOPOceanExcludingPoiarFD2NetCDF  RRSZOPOEPPDLRIM  NCDF  RangeBackscasterSigmaZeroOPOceanExcludingPoiarFD2NetCDF  RRSZOPOEPPDLRIM  NCDF  RangeBackscasterSigmaZeroOPOceanExcludingPoiarFD2PLRIMNetCDF  RRSZOPOEPPDLRIM  RRSZOPOEPPDLRIM  NCDF  RRPEPOEPPDLRIMNCDF  RRPEPOEPPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOERSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANNCDF  RRPEPOEPSIANN |                       | Test name   | Details  |
| MICEPNODE MasingValueIntOceanExcludingPolarNetCDF The value should not be a "missing value" for surface type 0 only for latitudes between 70 and 70 degrees MICINCDF RBSZOPOEPFDRUED RBSZOPOEP | BCSHNCDF              | BurstCounterStep20HzNetCDF                                  |  |
| MICINCOPF MassingValueIntiOceanNetCDF RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDLRM NCDF RBSZOPOEPFDLRM NCDF RBSZOPOEPFDLRM RBSZOPOEPFDLRM RBSZOPOEPFDLRM RBSZOPOEPFDLRM RBSZOPOEPFDLRM RBSZOPOEPFDLRM RBSZOPOEPNCDF RapgeBackscatterSigmazPeroOPCoeanExcludingPolarDEXPLANNetCDF RBSZOPOEPNCDF RapgeBackscatterSigmazPeroOPCoeanExcludingPolarDEXPLANNetCDF RBSZOPOEPNCDF RSWHOEPPNCDF RBSZOPOEPNCDF RBSZOPOEPNCDF RBSZOPOEPNCDF RBSZOPOEPNC | MVIOEPFDNCDF          | MissingValueIntOceanExcludingPolarFD2NetCDF                 | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees                               |
| RBSZOPOEPFDNODF RBSZOPOEPFDLRM RODF RBSZOPOEPMODF RPEPOPFDLRMSAR RongePeakinessExcludingPolarOPFDZLRMNetCDF RPEPOPFDLRMSAR RODF RPEPOPFDLRMSAR RODF RPEPOPFDLRMSIN RODF RPEPOPFDLRMSIN RODF RPEPOPFDLRMSIN RODF RPEPOPFDLRMSIN RODF RPEPOPFDLRMSIN RongePeakinessExcludingPolarOPFDZLRMSARNetCDF RPEPOPFDSARNODF RPEPOPFDSARNODF RPEPOPFDSARNODF RPEPOPFDSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSSARNODF RPEPOPFSARNODF RREDFORMSAR RODF RPEPOPFSARNODF RPEPOPFSARNODF RREDFORMSAR RODF RREDFORMSAR RODF RPEPOPFSARNODF RREDFORMSAR RODF RREDFORMSAR RODGF RREDFOR | MVIOEPNCDF            | MissingValueIntOceanExcludingPolarNetCDF                    | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees                               |
| RBSZOPCEFFENEN RRSZOPCEPFENEN RRSZOP | MVIONCDF              | MissingValueIntOceanNetCDF                                  | The value should not be a 'missing value' for surface type 0 only  |
| hargestackscatters/igmazero/Picksanksculding/PolarNetCDF RBSZOPOEPNCDF RBSZOPOEPNCDF RBSZOPOEPNCDF RBSZOPOEPNCBF RBSZOPOEPNCBF RBSZOPOEPNCBF RBSZOPOEPNCBF RBSZOPOEPNCBF RBSZOPOEPNCBF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDLRMSCDF RPEPOPFDSANNCDF RPEPOPFDSANNCDF RPEPOPFDSINNCDF RPEPOPFDRINNCDF RPEPOPF | 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 |
| RPEPOPEDLEMINGDF RREPOPEDLEMINGDF RREPOP |                       | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| REPEPOPEDRIANSAR ROF RangePeakinessExcludingPolarOPFD2H2MASANetCDF REPEPOPEDRIANSIN CDF REPEPOPEDRIANCDF REPEPOPEDRIANCDF REPEPOPEDSINNCDF REPEPOPEDSINNCDF REPEPOPEDSINNCDF REPEPOPEDSINNCDF REPEPOPEDSINNCDF REPEPOPERMINOCOF RESSEAONCOF RESSEAONCOF RESSEAONCOF RESSEAONCOF RESSEAONCOF RESSEADITECHELIGIBLE CONTROLL CONTR | 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 |
| RPEPOPFDRAINNODF RPEPOPFDSINNCDF RPEPOPSINNCDF RPE | RPEPOPFDLRMNCDF       | RangePeakinessExcludingPolarOPFD2LRMNetCDF                  | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                |
| RPEPOPFDSARNCDF RPEPOPFDSINNCDF RAngePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF ReapePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF ReapePeakinessExcludingPolarOPFD2SINNetCDF ReapePeakinessExcludingPolarOPFD2SINNetCDF ReapePeakinessExcludingPolarOPFD2SINNetCDF ReapePeakinessExcludingPolarOPFD2SINNetCDF ReapePeakinessExcludingPolarOPFD2SINNetCDF ReapePeakinessExcludingPolarOPFD8ARNetCDF ReapePeakinessExcludingPolarOPFD8ARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSARNetCDF ReapePeakinessExcludingPolarOPSINNetCDF ReapeSeaSurfaceHeightAnomalyOceanFDSPLRMNetCDF Resea surface height anomaly should be between -5000mm and 3000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees Resea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees Resea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees Resea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees Resea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees Resea surface height anomaly should be between -3000mm and 3000mm |                       | RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF              | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFDSINNetCDF RPEPOPLRMNCDF RangePeakinessExcludingPolarOPFDSINNetCDF RPEPOPSARNCDF Reperopsinncd  |                       | RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF              | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RPEPOPLRMNCDF RangePeakinessExcludingPolarOPL2SinNetCDF RPEPOPSARNCDF RPEPOPSARNCDF RangePeakinessExcludingPolarOPLRMNetCDF RPEPOPSARNCDF RangePeakinessExcludingPolarOPSARNetCDF RPEPOPSINNCDF RangePeakinessExcludingPolarOPSARNetCDF Repeakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees  The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees  RSBCONCDF RangeSeaStateBiasCorrectionOceanNetCDF RSSHAOFDNCDF RSSHAOFDNCDF RSSHAOFDNCDF RSSHAOFDLRMNCDF RAngeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDLRMNCDF RRSWHOEPFDLRMNCDF RSWHOEPFDLRMNCDF RSWHOEP | RPEPOPFDSARNCDF       | RangePeakinessExcludingPolarOPFD2SARNetCDF                  | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RPEPOPSARNCDF RangePeakinessExcludingPolarOPSARNetCDF RPEPOPSARNCDF RangePeakinessExcludingPolarOPSARNetCDF RPEPOPSINNCDF RangePeakinessExcludingPolarOPSINNetCDF RSSECONCDF RangeSeaStateBiasCorrectionOceanNetCDF RSSECONCDF RangeSeaStateBiasCorrectionOceanNetCDF RSSHAOFDNCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAOFDLRMNCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDRMNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RSWHOEPFDRMNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RSWHOEPFDRMNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RSWHOEPROCF RSWHOEPROCF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RSWHOEPNCDF RSWHOEPNCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RSWHOEPN | RPEPOPFDSINNCDF       | RangePeakinessExcludingPolarOPFD2SINNetCDF                  | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RPEPOPSINNCDF RangePeakinessExcludingPolarOPSINNetCDF RangePeakinessExcludingPolarOPSINNetCDF RangePeakinessExcludingPolarOPSINNetCDF RangeSeaStateBiasCorrectionOceanNetCDF RangeSeaStateBiasCorrectionOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RangeSignificantWaveHeightOceanExcludingPo | RPEPOPLRMNCDF         | RangePeakinessExcludingPolarOPLRMNetCDF                     | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                |
| RSSBCONCDF RangeSeaStateBiasCorrectionOceanNetCDF RSSHAOFDNCDF RSSHAOFDNCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RSSHAOFDPLRMNCD RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF RSSHAOFDPLRMNCD RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF Range | RPEPOPSARNCDF         | RangePeakinessExcludingPolarOPSARNetCDF                     | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RSSHAOFDNCDF RSSHAOFDPLRMNCD RSSHAOFDPLRMNCD RSSHAOFDPLRMNCD RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF RSSHAONCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDRMNC DF RSWHOEPFDRMNC DF RSWHOEPFDRMNC DF RSWHOEPNCDF RSWHOEP | RPEPOPSINNCDF         | RangePeakinessExcludingPolarOPSINNetCDF                     | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees               |
| RSSHAOFDRUDF RANGESeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF RSSHAONCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF RSWHOEPFDNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF RSWHOEPFDNCDF RSWHOEPFDRMNC DF RSWHOEPROLDF RAngeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RSWHOEPROLDF RAngeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPROLDF Rsymiation wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees RSWHOEPROLDF Rsymiation wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees RSWHOEPROLDF RSWHO | RSSBCONCDF            | RangeSeaStateBiasCorrectionOceanNetCDF                      | The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean                                     |
| RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanFLDPLHMNetCDF RSWHOEPFDNCDF RSWHOEPNCDF RSWHOEPN | RSSHAOFDNCDF          | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF                  |  |
| RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDNCDF RSWHOEPFDPLRMNC DF RSWHOEPFDPLRMNC DF RSWHOEPFDPLRMNC DF RSWHOEPFDPLRMNC DF RSWHOEPFDPLRMNC DF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RSHERT TO AND T | RSSHAOFDPLRMNCD<br>F  | RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF              | 0 7  |
| Hange-significantwaveHeightOceanExcludingPolarFD2NetCDF RSWHOEPFDLRMNC DF RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RangeSignificantwaveHeight Sound 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)  SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF Rel_Time_ASC_Node_Stop mismatch  SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample  The sequence counter should be modulo 4 higher with regard to the previous sequence counter   | RSSHAONCDF            | RangeSeaSurfaceHeightAnomalyOceanNetCDF                     |  |
| DF RangeSignificantWaveHeightOceanExcludingPolarPD2PLHMNetCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF Rel_Time_ASC_Node_Start_v2_NetCDF Rel_Time_ASC_Node_Start_v2_NetCDF Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)  SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF Rel_Time_ASC_Node_Stop mismatch  SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample  SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter   | RSWHOEPFDNCDF         | RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF      |  |
| SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Start_v2_NetCDF Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)  SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF Rel_Time_ASC_Node_Stop mismatch SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter  |                       | RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF  |  |
| SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF Rel_Time_ASC_Node_Stop mismatch  SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample  SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter  | RSWHOEPNCDF           | RangeSignificantWaveHeightOceanExcludingPolarNetCDF         |  |
| SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter  | SPHRTASCNSNCDF        | SPH_Rel_Time_ASC_Node_Start_v2_NetCDF                       | Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)  |
| SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter  | SPHRTASCNSNCDF        | SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF                        | Rel_Time_ASC_Node_Stop mismatch  |
|  | SOOHHIFHD             | SameOrOneHigher1HzIndexFor20HzData                          | The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample   |
| Sequence CounterStenTONNetCDF The sequence counter should be one higher (modulo 1699A) with record to the provious sequence counter.   | SCSTODHRNCDF          | SequenceCounterStepTODHRNetCDF                              | The sequence counter should be modulo 4 higher with regard to the previous sequence counter  |
| The Sequence contract should be one higher (modulo 10304) with regard to the previous Sequence contract  | SCSTODNCDF            | SequenceCounterStepTODNetCDF                                | The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter                                    |

## 7.3 Missing QCC Reports

Number of products with missing QCC reports: