



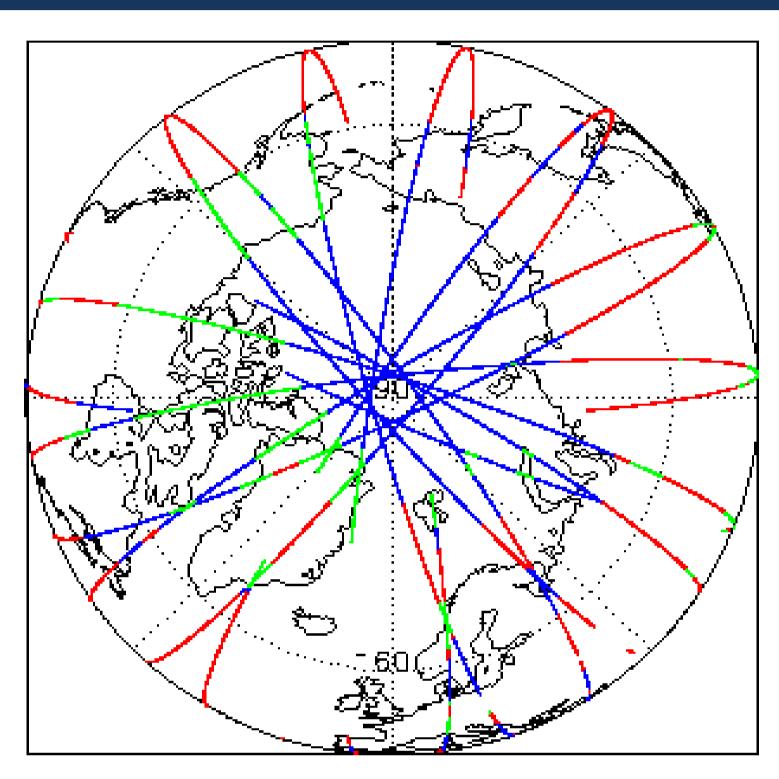
## 1. Overview

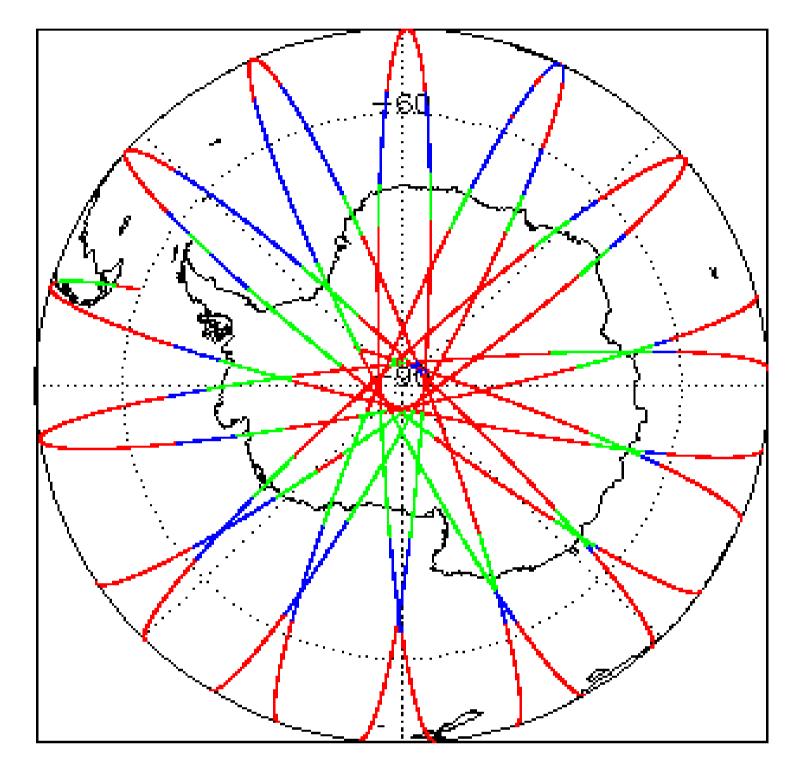
| Report Production: | 15-Dec-2022  |  |
|--------------------|--|--|
| Processor Used:    | CryoSat Ocean Processor                                      |  |
| Data Used:         | Near Real Time Ocean Products (NOP)<br>L1B & L2 Science Data |  |

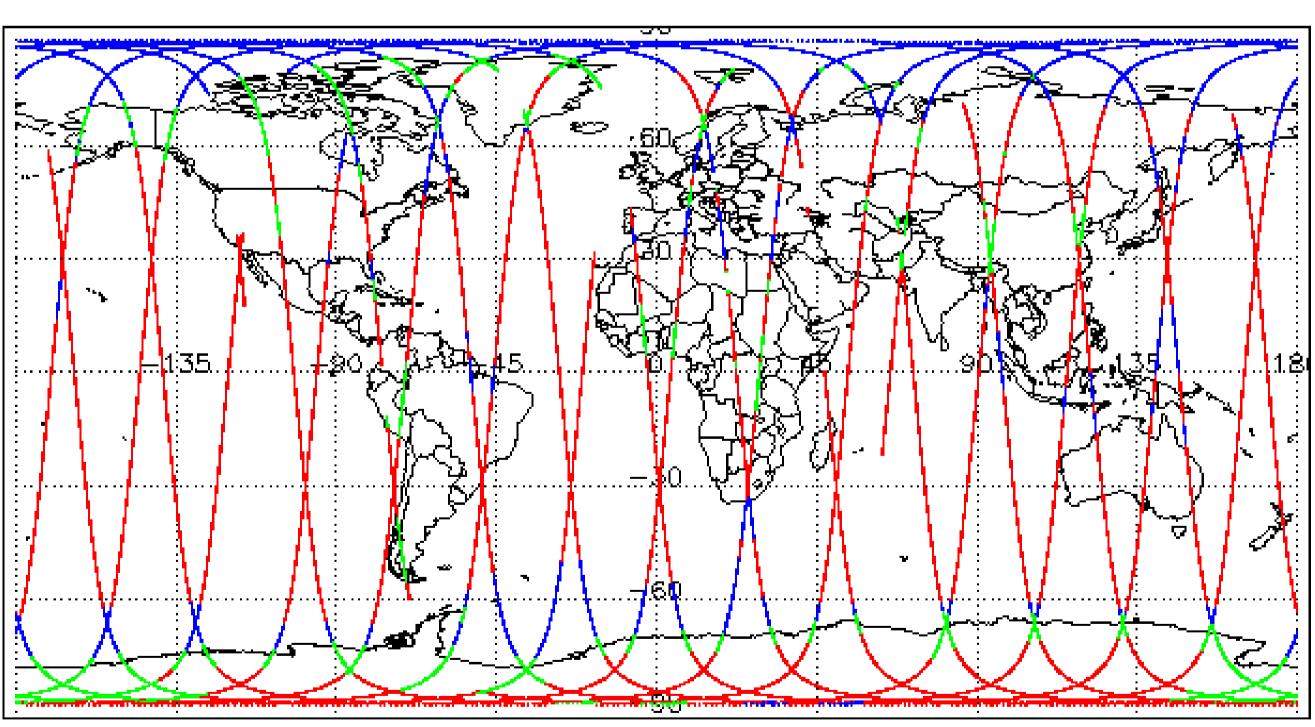
| Check                                     | L1 & L2                 |
|---|-------------------------|
| Server check: science-pds.cryosat.esa.int | Nominal                 |
| Server check: calval-pds.cryosat.esa.int  | Nominal                 |
| Product Software Check                    | Nominal                 |
| 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    |
| Measurement Quality Flag Check            | See Section 5.6         |
| Ocean Retracking Quality Check            | See Section 5.7         |
| QCC Error/ Warning Check                  | See Section 7.1 and 7.2 |

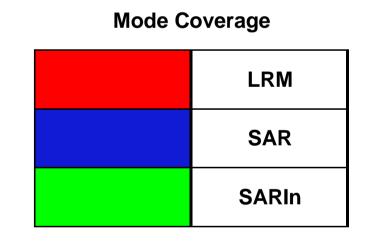
| Mission / Instr | Mission / Instrument News |  |  |
|-----------------|---------------------------|--|--|
| 13-Dec-2022     | None                      |  |  |
| 14-Dec-2022     | None                      |  |  |
| 15-Dec-2022     | Nothing planned           |  |  |

# 2. Global Coverage









## 3. Instrument Configuration

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

| SIRAL instrument(s) in use: | SIRAL - A      |
|-----------------------------|----------------|
| Star Tracker(s) in use:     | Star Tracker 1 |

# 4. NOP Level 1B Data Quality Check

# 4.1 L1B Product Format Check

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

#### **4.2 L1B Product Header Analysis**

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

> L1B Processing Quality HR: The l1b\_proc\_flag\_hr flag is currently set all L1B NOPR and NOPN products because the l1b\_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:

0

0

#### 4.5 L1B Measurement Confidence Data Check

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

> Attitude Correction Missing: This flag is currently set in error for 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:

#### 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.

10

Number of products with errors:

| Ť | products | with errors: |  |
|---|----------|--------------|--|
|   |          |              |  |
|   |          |              |  |

| Product   | Test Failed  | Description  |
|---|--------------|--|
| CS_OFFL_SIR_NOPM1B_20221214T003659_20221214T010139_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20221214T084755_20221214T090010_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20221214T121001_20221214T123631_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20221214T011253_20221214T011433_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20221214T083750_20221214T083856_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20221214T150606_20221214T150653_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20221214T200658_20221214T200914_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20221214T055623_20221214T060321_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20221214T132950_20221214T133924_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20221214T200914_20221214T201038_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: 0

#### **5.3 L2 Auxiliary Data File Usage Check**

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

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

Number of products with errors: 47

| Product   | Test Failed                                       | Description  |
|---|---|--|
| CS_OFFL_SIR_NOPN_2_20221214T024949_20221214T025305_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_20221214T034102_20221214T034155_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_20221214T042227_20221214T042341_C001 | liviean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
|---|--|--|
| CS_OFFL_SIR_NOPN_2_20221214T042847_20221214T043203_C001 | 11106 (3()11 10)2((360(60)1)((0)0621)  | 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_20221214T060322_20221214T060559_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_20221214T060752_20221214T061337_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_20221214T065838_20221214T065958_C001 | · ·  | 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_20221214T074141_20221214T074458_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_20221214T083750_20221214T083856_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_20221214T092055_20221214T092256_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_20221214T110028_20221214T110146_C001 | liviean Dynamic Lobography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20221214T110943_20221214T111219_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_20221214T123948_20221214T124109_C001 | Tiviean Dynamic Tobodraphy (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20221214T124959_20221214T125123_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_20221214T141938_20221214T142304_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_20221214T151819_20221214T152051_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_20221214T155843_20221214T160204_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_20221214T160721_20221214T160844_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_20221214T164823_20221214T165055_C001 | Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records |
| CS_OFFL_SIR_NOPN_2_20221214T174611_20221214T174729_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_20221214T182854_20221214T182959_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_20221214T192319_20221214T192519_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_20221214T200658_20221214T200914_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_20221214T214238_20221214T214749_C001 | Mean Dynamic Topography (1), Total<br>Geocentric Ocean Tide (GOT)              | There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records  |
| CS_OFFL_SIR_NOPN_2_20221214T224235_20221214T224454_C001 | liviean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPN_2_20221214T232032_20221214T232612_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_20221214T001528_20221214T002325_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_20221214T015407_20221214T020138_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_20221214T020524_20221214T020713_C001 | IIVIean Dynamic Lobography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPR_2_20221214T021049_20221214T021237_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_20221214T065125_20221214T065712_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_20221214T065712_20221214T065838_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_20221214T073956_20221214T074140_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_20221214T083113_20221214T083307_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_20221214T083310_20221214T083514_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_20221214T083514_20221214T083749_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_20221214T115220_20221214T115722_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_20221214T132950_20221214T133924_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_20221214T151022_20221214T151819_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_20221214T165056_20221214T165813_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_20221214T182959_20221214T183719_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_20221214T200914_20221214T201038_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_20221214T201038_20221214T201605_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_20221214T214749_20221214T215313_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_20221214T215321_20221214T215430_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_20221214T232612_20221214T233026_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_20221214T233026_20221214T233536_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 |

#### **5.5 L2 Measurement Confidence Data Check**

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

Number of products with errors:

# 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20 Hz)

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

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

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

Number of products with errors:

85

0

| Product   | Test Failed  | Description   |
|---|--|---|
| CS_OFFL_SIR_NOPM_2_20221213T233655_20221214T000502_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_20221214T003659_20221214T010139_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_NOPM_2_20221214T010421_20221214T010917_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_20221214T010924_20221214T011253_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_20221214T011734_20221214T015058_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_20221214T020321_20221214T020524_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_NOPM_2_20221214T024420_20221214T024949_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_20221214T025628_20221214T032950_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_NOPM_2_20221214T034233_20221214T034417_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_20221214T040202_20221214T041847_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_20221214T042341_20221214T042847_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T043510_20221214T050842_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_20221214T053340_20221214T055623_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_20221214T061506_20221214T062701_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_20221214T062822_20221214T062931_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_20221214T063027_20221214T063212_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_20221214T063653_20221214T064544_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_20221214T065958_20221214T070232_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T070400_20221214T072112_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_20221214T072309_20221214T073733_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_20221214T074458_20221214T074704_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T074758_20221214T075206_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T075359_20221214T080703_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_20221214T081120_20221214T082042_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_20221214T082620_20221214T082629_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T084755_20221214T090010_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_20221214T090538_20221214T091923_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_20221214T092256_20221214T093109_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T093347_20221214T094925_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_20221214T100448_20221214T100505_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T102526_20221214T103127_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T103207_20221214T103540_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_20221214T103542_20221214T105834_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_20221214T110427_20221214T110943_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T111259_20221214T113736_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
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| CS_OFFL_SIR_NOPM_2_20221214T121001_20221214T123631_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_20221214T124354_20221214T124959_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T125215_20221214T130910_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_20221214T132103_20221214T132104_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T132746_20221214T132950_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_20221214T134307_20221214T141556_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_20221214T142304_20221214T142831_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T143151_20221214T143622_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_20221214T150712_20221214T151022_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_20221214T152226_20221214T153106_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_20221214T153351_20221214T155550_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_20221214T160204_20221214T160309_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T160312_20221214T160721_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T161205_20221214T162857_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_20221214T163224_20221214T163618_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T170049_20221214T173422_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_20221214T173729_20221214T174207_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T174227_20221214T174610_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T175308_20221214T182441_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_20221214T184108_20221214T184229_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_20221214T184309_20221214T185146_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_20221214T185628_20221214T185839_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_20221214T185923_20221214T191356_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_20221214T191550_20221214T192107_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T193123_20221214T194446_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_20221214T194854_20221214T200030_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
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| CS_OFFL_SIR_NOPM_2_20221214T200157_20221214T200302_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_20221214T201937_20221214T202003_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T202219_20221214T202220_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T202625_20221214T203448_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_20221214T203828_20221214T205238_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_20221214T205517_20221214T210019_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T210056_20221214T210157_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T210852_20221214T211000_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_20221214T211445_20221214T212122_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_20221214T212603_20221214T213039_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_20221214T213322_20221214T213910_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T221002_20221214T223139_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_20221214T223547_20221214T223936_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T223958_20221214T224234_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_20221214T224614_20221214T231336_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_20221214T231638_20221214T231640_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_20221214T231642_20221214T231644_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPM_2_20221214T234631_20221215T001112_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_20221214T034443_20221214T034557_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPN_2_20221214T200411_20221214T200442_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_20221214T210053_20221214T210056_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_20221214T015232_20221214T015248_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_20221214T043203_20221214T043510_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_NOPR_2_20221214T143622_20221214T143912_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality   | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  |

#### L2 Quality Flags (20 Hz PLRM)

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

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

| Product   | Test Failed   | Description   |
|---|---|---|
| CS_OFFL_SIR_NOPN_2_20221214T011253_20221214T011433_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_NOPN_2_20221214T022116_20221214T022255_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_NOPN_2_20221214T022311_20221214T022641_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_NOPN_2_20221214T024949_20221214T025305_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_NOPN_2_20221214T034102_20221214T034155_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_NOPN_2_20221214T034942_20221214T035103_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_NOPN_2_20221214T060322_20221214T060559_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_NOPN_2_20221214T060752_20221214T061337_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_NOPN_2_20221214T073853_20221214T073956_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_NOPN_2_20221214T074141_20221214T074458_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_NOPN_2_20221214T082042_20221214T082256_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_NOPN_2_20221214T083750_20221214T083856_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_20221214T083948_20221214T084045_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_NOPN_2_20221214T084230_20221214T084315_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_20221214T090010_20221214T090537_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_NOPN_2_20221214T093109_20221214T093256_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_20221214T100227_20221214T100301_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_NOPN_2_20221214T110028_20221214T110146_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_NOPN_2_20221214T113736_20221214T113835_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_NOPN_2_20221214T114020_20221214T114059_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_NOPN_2_20221214T115024_20221214T115054_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_NOPN_2_20221214T115159_20221214T115220_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_20221214T124202_20221214T124354_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_NOPN_2_20221214T124959_20221214T125123_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_20221214T133924_20221214T134307_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_NOPN_2_20221214T141938_20221214T142304_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_NOPN_2_20221214T142831_20221214T142948_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_NOPN_2_20221214T150133_20221214T150144_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_NOPN_2_20221214T150606_20221214T150653_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_NOPN_2_20221214T151819_20221214T152051_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_NOPN_2_20221214T155843_20221214T160204_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_NOPN_2_20221214T160721_20221214T160844_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_NOPN_2_20221214T162857_20221214T163224_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_NOPN_2_20221214T164823_20221214T165055_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_NOPN_2_20221214T174611_20221214T174729_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_NOPN_2_20221214T182854_20221214T182959_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_NOPN_2_20221214T192319_20221214T192519_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_20221214T200658_20221214T200914_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_NOPN_2_20221214T205329_20221214T205517_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_NOPN_2_20221214T211000_20221214T211445_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_NOPN_2_20221214T214238_20221214T214749_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_20221214T220345_20221214T220744_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_NOPN_2_20221214T223236_20221214T223546_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_20221214T231432_20221214T231638_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_NOPN_2_20221214T232032_20221214T232612_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_20221214T233617_20221214T233740_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_20221214T001528_20221214T002325_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_20221214T011433_20221214T011733_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_20221214T015232_20221214T015248_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_20221214T015407_20221214T020138_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_20221214T020524_20221214T020713_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_20221214T023948_20221214T024300_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_20221214T025305_20221214T025628_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_20221214T035103_20221214T035309_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_20221214T041847_20221214T042227_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_20221214T043203_20221214T043510_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_20221214T050843_20221214T051039_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_20221214T055623_20221214T060321_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_20221214T064544_20221214T064634_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_20221214T064647_20221214T064758_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_20221214T064811_20221214T064833_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_20221214T065712_20221214T065838_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_20221214T073956_20221214T074140_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_20221214T080919_20221214T081120_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_20221214T083113_20221214T083307_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_20221214T083310_20221214T083514_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_20221214T084045_20221214T084230_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_20221214T084315_20221214T084633_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_20221214T084646_20221214T084755_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_20221214T105835_20221214T110028_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_20221214T114818_20221214T115024_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_20221214T123631_20221214T123948_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_20221214T132618_20221214T132746_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_20221214T132950_20221214T133924_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_20221214T141556_20221214T141938_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_20221214T142948_20221214T143151_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_20221214T150257_20221214T150551_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_20221214T151022_20221214T151819_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_20221214T155550_20221214T155843_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_20221214T165056_20221214T165813_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_20221214T165815_20221214T165853_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_20221214T174729_20221214T175308_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_20221214T182959_20221214T183719_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_20221214T183931_20221214T183935_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_20221214T183939_20221214T183945_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_20221214T192520_20221214T193122_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_20221214T194446_20221214T194659_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_20221214T200030_20221214T200157_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_20221214T200442_20221214T200658_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_20221214T200914_20221214T201038_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_20221214T201038_20221214T201605_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_20221214T205238_20221214T205329_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_20221214T214032_20221214T214238_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_20221214T214749_20221214T215313_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_20221214T233026_20221214T233536_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM          | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
|   |   |   |

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

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

> 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: 197

## 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: 62

#### 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: 143

## 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   | 204          | 204             | 1         | 203          | 0          |
| SIR_NOPR1B   | 123          | 123             | 0         | 123          | 0          |
| SIR_NOPN1B   | 95           | 95              | 2         | 93           | 0          |
| SIR_NOPM_2   | 204          | 204             | 147       | 57           | 0          |
| SIR_NOPR_2   | 123          | 123             | 46        | 76           | 1          |
| SIR_NOPN_2   | 95           | 95              | 37        | 58           | 0          |

## 7.1 QCC Errors

**Number of QCC reports with errors:** 

1

#### Total number of occurrences of each error

| <b>Product Type</b> | RLOBOPNCDF | RL | RLOBOPNCDF | RL | - | - | - | - | - | - | - |
|---------------------|------------|----|------------|----|---|---|---|---|---|---|---|
| SIR_NOPR_2          | 1          | 1  | 1          | 1  |   |   |   |   |   |   |   |
|                     |            |    |            |    |   |   |   |   |   |   |   |

| <b>Test Description Key:</b> |                                 |   |
|------------------------------|---------------------------------|---|
| Abbreviation                 | Test name                       | Details   |
| RLOBOPNCDF                   | RangeLatitudeOrBlankOP_7NetCDF  | Latitude should be between -90E7 and 90E7 - NetCDF    |
| RL                           | RangeLatitude_7                 | Latitude should be between -90E7 and 90E7             |
| RLOBOPNCDF                   | RangeLongitudeOrBlankOP_7NetCDF | Longitude should be between -180E7 and 180E7 - NetCDF |

# 7.2 QCC Warnings

Number of QCC reports with warnings

1833

Total number of occurrences of each warning

| retail number of occarrences of cash warning |          |          |              |            |          |                 |                    |
|--|----------|----------|--------------|------------|----------|-----------------|--------------------|
| Product Type                                 | BCSHNCDF | IOHHMOOR | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNCI |
| SIR_NOPM1B                                   | 203      | 0        | 0            | 0          | 0        | 0               | 0                  |
| SIR_NOPM_2                                   | 0        | 0        | 46           | 48         | 0        | 41              | 0                  |
| SIR_NOPN1B                                   | 90       | 0        | 0            | 0          | 0        | 0               | 0                  |
| SIR_NOPN_2                                   | 0        | 0        | 5            | 33         | 3        | 23              | 24                 |
| SIR_NOPR1B                                   | 118      | 0        | 0            | 0          | 0        | 0               | 0                  |
| SIR_NOPR_2                                   | 0        | 1        | 37           | 49         | 0        | 28              | 30                 |

| Product Type | RBSZOPOEPNCDF | RNELPOTONCDF | RPEPOPFDLRMNCDF | RPEPOPFDPLRMSARNC | RPEPOPFDPLRMSINNCD | RPEPOPFDSARNCDF | RPEPOPFDSINNCDF |
|--------------|---------------|--------------|-----------------|-------------------|--------------------|-----------------|-----------------|
| SIR_NOPM1B   | 0             | 0            | 0               | 0                 | 0                  | 0               | 0               |
| SIR_NOPM_2   | 38            | 1            | 41              | 0                 | 0                  | 0               | 0               |
| SIR_NOPN1B   | 0             | 0            | 0               | 0                 | 0                  | 0               | 0               |
| SIR_NOPN_2   | 16            | 0            | 0               | 0                 | 22                 | 0               | 33              |
| SIR_NOPR1B   | 0             | 0            | 0               | 0                 | 0                  | 0               | 0               |
| SIR NOPR 2   | 11            | 0            | 0               | 51                | 0                  | 58              | 0               |

| Product Type | RPEPOPLRMNCDF | RPEPOPSARNCDF | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF |
|--------------|---------------|---------------|---------------|------------|--------------|------------------|------------|
| SIR_NOPM1B   | 0             | 0             | 0             | 0          | 0            | 0                | 0          |
| SIR_NOPM_2   | 33            | 0             | 0             | 6          | 29           | 0                | 6          |
| SIR_NOPN1B   | 0             | 0             | 0             | 0          | 0            | 0                | 0          |
| SIR_NOPN_2   | 0             | 0             | 29            | 14         | 45           | 51               | 22         |
| SIR_NOPR1B   | 0             | 0             | 0             | 0          | 0            | 0                | 0          |
| SIR_NOPR_2   | 0             | 50            | 0             | 3          | 67           | 35               | 8          |

| Product Type | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SPHRTASCNSNCDF | SOOHHIFHD | SCSTODHRNCDF | SCSTODNCDF |
|--------------|---------------|-------------------|-------------|----------------|-----------|--------------|------------|
| SIR_NOPM1B   | 0             | 0                 | 0           | 1              | 0         | 0            | 0          |
| SIR_NOPM_2   | 43            | 0                 | 3           | 1              | 0         | 0            | 0          |
| SIR_NOPN1B   | 0             | 0                 | 0           | 0              | 0         | 43           | 1          |
| SIR_NOPN_2   | 27            | 28                | 10          | 0              | 0         | 0            | 0          |
| SIR_NOPR1B   | 0             | 0                 | 0           | 0              | 0         | 123          | 7          |
| SIR_NOPR_2   | 45            | 50                | 2           | 0              | 1         | 0            | 0          |

| RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF Repoproperation of the Peakiness should be between 0 and 15000 (or missing and 70 degrees  The Peakiness should be between 0 and 90000 (or missing and 70 degrees  The Peakiness should be between 0 and 90000 (or missing and 70 degrees  The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  | the range 0 to (number of 1 Hz samples - 1)  O only for latitudes between -70 and 70 degrees |
|--|--|
| IOHHMOOR  IndexOffHzin20HzMappingOutOfRange  The mapping of 20 Hz to 1 Hz measurements should be in MVIOEPFDNCDF  MissingValueIntOceanExcludingPolarFD2NetCDF  The value should not be a 'missing value' for surface type of MVIOEPNCDF  MissingValueIntOceanNetCDF  RBSZOPOEPFDNCDF  RBSZOPOEPNCDF   | the range 0 to (number of 1 Hz samples - 1)  O only for latitudes between -70 and 70 degrees |
| MVIOEPFDNCDF MissingValueIntOceanExcludingPolarFD2NetCDF The value should not be a 'missing value' for surface type ( MVIONCDF MissingValueIntOceanExcludingPolarNetCDF The value should not be a 'missing value' for surface type ( MVIONCDF MissingValueIntOceanNetCDF The value should not be a 'missing value' for surface type ( MVIONCDF RBSZOPOEPFDNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF The backscatter sigma zero should be between 700 and 75 between -70 and 70 degrees  RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF The backscatter sigma zero should be between 700 and 75 between -70 and 70 degrees  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF The backscatter sigma zero should be between 700 and 75 between -70 and 70 degrees  RNELPOTONCDF RangeNELPOceanTideOceanNetCDF The Non-equilibrium long period ocean loading tide height surface type = ocean  RPEPOPFDLRMNCDF RangePeakinessExcludingPolarOPFD2LRMNetCDF The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF The Peakiness should be between 0 and 15000 (or missing and 70 degrees)  RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF The Peakiness should be between 0 and 90000 (or missing and 70 degrees)  RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 15000 (or missing and 70 degrees)  RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 90000 (or missing and 70 degrees)  RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 90000 (or missing and 70 degrees)  RPEPOPLRMNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 6400 (or missing and 70 degrees)  RPEPOPLRMNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 6400 (or missing and 70 degrees)  RPEPOPLRMNCDF The Peakiness should be between 0 and 6400 (or missing and 70 degrees)   | only for latitudes between -70 and 70 degrees  |
| MVIOREPNCDF MissingValueIntOceanExcludingPolarNetCDF The value should not be a 'missing value' for surface type ( MVIONCDF MissingValueIntOceanNetCDF The value should not be a 'missing value' for surface type ( The value should not be a 'missing value' for surface type ( The backscatter sigma zero should be between 700 and 75 between -70 and 70 degrees  RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarPD2PLRMNetCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RangeNELPOCeanTideOceanNetCDF  RangeNelPOceanTideOceanNetCDF  RangePeakinessExcludingPolarOPFD2LRMNetCDF  RangePeakinessExcludingPolarOPFD2LRMNetCDF  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF  RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF  RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF  RangePeakinessExcludingPolarOPFD2SARNetCDF  RangePeakinessExcludingPolarOPFD2SARNetCDF  RangePeakinessExcludingPolarOPFD2SINNetCDF  RangePeakinessExcludin |  |
| MVIONCDF  RBSZOPOEPFDNCDF  RBSZOPOEPFDNCDF  RBSZOPOEPFDNCDF  RBSZOPOEPFDNCDF  RBSZOPOEPFDNCDF  RBSZOPOEPFDLRM  NCDF  RBSZOPOEPFDLRM  NCDF  RBSZOPOEPFDLRM  NCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RBSZOPOEPNCDF  RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF  RangeNELPOceanTideOceanNetCDF  RPEPOPFDLRMNCDF  RangePeakinessExcludingPolarOPFD2LRMNetCDF  RPEPOPFDLRMNCDF  RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF  RPEPOPFDPLRMSAR  NCDF  RPEPOPFDPLRMSINN  CDF  RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF  RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF  RPEPOPFDSARNCDF  RangePeakinessExcludingPolarOPFD2SARNetCDF  RPEPOPFDSINNCDF  RangePeakinessExcludingPolarOPFD2SARNetCDF  RPEPOPFDSINNCDF  RangePeakinessExcludingPolarOPFD2SINNetCDF  RangePeakiness should be between 0 and 15000 (or missing and 70 degrees  The Peakiness should be between 0 and 15000 (or missing and 70 degrees  The Peakiness should be between 0 and 15000 (or missing and 70 degrees  The Peakiness should be between 0 and 90000 (or missing and 70 degrees  The Peakiness should be between 0 and 90000 (or missing and 70 degrees  The Peakiness should be between 0 and 6400 (or missing and 70 degrees  The Peakiness should be between 0 and 6400 (or missing and 70 degrees  RPEPOPLRMNCDF  RangePeakinessExcludingPolarOPFD2SINNetCDF  The Peakiness should be between 0 and 6400 (or missing and 70 degrees  The Peakiness should be between 0 and 6400 (or missing and 70 degrees  | only for latitudes between -70 and 70 degrees  |
| RBSZOPOEPFDNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF RBSZOPOEPFDPLRM NCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarPD2PLRMNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RNELPOTONCDF RangeNelPOceanTideOceanNetCDF RangeNelPOceanTideOceanNetCDF ReperoppenterMNCDF RangePeakinessExcludingPolarOPFD2LRMNetCDF RPEPOPFDLRMNCDF RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF RPEPOPFDPLRMSAR NCDF RPEPOPFDPLRMSINN CDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SARNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SARNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SARNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SARNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SARNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SINNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SINNetCDF Reperoppenter RangePeakinessExcludingPolarOPFD2SINNetCDF Reperoppenter Reperoppenter RangePeakinessExcludingPolarOPFD2SINNetCDF Reperoppenter Reperoppenter RangePeakinessExcludingPolarOPFD2SINNetCDF Reperoppenter Reperoppent |  |
| RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDNCDF RBSZOPOEPFDPLRM NCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF Reperopperton  | only only  |
| NCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarPD2PLRMNetCDF RBSZOPOEPNCDF RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF RNELPOTONCDF RangeNELPOceanTideOceanNetCDF RPEPOPFDLRMNCDF RangePeakinessExcludingPolarOPFD2LRMNetCDF RPEPOPFDPLRMSAR NCDF RPEPOPFDPLRMSINN CDF RPEPOPFDLRMSINN CDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF RepepopfDSINNCDF RepeakinessExcludingPolarOPFD2SINNetCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepepopfDSINNCDF RepeakinessExcludingPolarOPFD2SINNetCDF RepepopfDSINNCDF RepeakinessExcludingPolarOPFD2SINNetCDF RepepopfDSINNCDF RepeakinessExcludingPolarOPFD2SINNetCDF Repeakiness should be between 0 and 6400 (or missing and 70 degrees) The Peakiness should be between 0 and 6400 (or missing and 70 degrees) The Peakiness should be between 0 and 6400 (or missing and 70 degrees) The Peakiness should be between 0 and 6400 (or missing) and 70 degrees   | 00 (or missing) for surface type = ocean for latitudes                                       |
| RNELPOTONCDF RangeNELPOceanTideOceanNetCDF RPEPOPFDLRMNCDF RangePeakinessExcludingPolarOPFD2LRMNetCDF RPEPOPFDPLRMSAR NCDF RPEPOPFDPLRMSINN CDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF ReperopfDsinncdf RangePeakinessExcludingPolarOPFD2SinnetCDF ReperopfDsinnetCDf Reper | 600 (or missing) for surface type = ocean for latitudes                                      |
| RNELPOTONCDF RangePeakinessExcludingPolarOPFD2LRMNetCDF RPEPOPFDLRMSAR NCDF RPEPOPFDLRMSINN CDF RPEPOPFDLRMSINN CDF RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF Responsible to the peakiness and the peakiness should be between 0 and 15000 (or missing and 70 degrees)  The Peakiness should be between 0 and 15000 (or missing and 70 degrees)  The Peakiness should be between 0 and 90000 (or missing and 70 degrees)  The Peakiness should be between 0 and 90000 (or missing and 70 degrees)  Responsible to the peakiness should be between 0 and 15000 (or missing and 70 degrees)  Responsible to the peakiness should be between 0 and 90000 (or missing and 70 degrees)  Responsible to the peakiness should be between 0 and 90000 (or missing and 70 degrees)  Responsible to the peakiness should be between 0 and 90000 (or missing and 70 degrees)  Responsible to the peakiness should be between 0 and 6400 (or missing and 70 degrees)  The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  | 600 (or missing) for surface type = ocean for latitudes                                      |
| RPEPOPFDLRMINGDF RPEPOPFDPLRMSAR NCDF RPEPOPFDPLRMSINN CDF RPEPOPFDPLRMSINN CDF RPEPOPFDPLRMSINN CDF RPEPOPFDSARNCDF RPEPOPFDSARNCDF RPEPOPFDSARNCDF RPEPOPFDSARNCDF RPEPOPFDSINNCDF RPEPOPFDSINNCDF Residences Excluding Polar OPFD2 SARNetCDF RPEPOPFDSINNCDF Residences Excluding Polar OPFD2 SARNetCDF Residences Excluding Polar OPFD2 SARNetCDF Residences Excluding Polar OPFD2 SARNetCDF Residences Excluding Polar OPFD2 SINNetCDF Residence Sand 70 degrees The Peakiness should be between 0 and 90000 (or missing and 70 degrees The Peakiness should be between 0 and 90000 (or missing and 70 degrees The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  | should be between -40mm and 40mm (or missing) for  |
| NCDF RPEPOPFDPLRMSINN CDF RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF Responsible RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF RPEPOPFDSARNCDF Responsible RangePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF Responsible RangePeakinessExcludingPolarOPFD2SINNetCDF  | for surface type = ocean for latitudes between -70   |
| RPEPOPFDSARNCDF RangePeakinessExcludingPolarOPFD2SARNetCDF RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF Repoproproaches and 70 degrees   | g) for surface type = ocean for latitudes between -70  |
| RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SARNetCDF RepopfDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF RepopfDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF RepopfDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF RepopfDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  | g) for surface type = ocean for latitudes between -70  |
| RPEPOPFDSINNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF and 70 degrees  RPEPOPLRMNCDF RangePeakinessExcludingPolarOPFD2SINNetCDF  The Peakiness should be between 0 and 6400 (or missing) and 70 degrees  | g) for surface type = ocean for latitudes between -70  |
| RPEPOPLRMINCDF RangePeakinessExcludingPolarOPLRMinetCDF and 70 degrees   | g) for surface type = ocean for latitudes between -70  |
| Tt - D- 11   | for surface type = ocean for latitudes between -70   |
| RPEPOPSARNCDF RangePeakinessExcludingPolarOPSARNetCDF and 70 degrees   | g) for surface type = ocean for latitudes between -70  |
| RPEPOPSINNCDF RangePeakinessExcludingPolarOPSINNetCDF The Peakiness should be between 0 and 90000 (or missing and 70 degrees   | g) for surface type = ocean for latitudes between -70  |
| RSSBCONCDF RangeSeaStateBiasCorrectionOceanNetCDF The sea state bias correction should be between -500mm a   | and 0mm (or missing) for surface type = ocean  |
| RSSHAOFDNCDF RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF The sea surface height anomaly should be between -3000r ocean  | nm and 3000mm (or missing) for surface type =  |
| RSSHAOFDPLRMNCD RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF  The sea surface height anomaly should be between -3000r ocean  | nm and 3000mm (or missing) for surface type =  |
| RSSHAONCDF RangeSeaSurfaceHeightAnomalyOceanNetCDF The sea surface height anomaly should be between -3000r ocean   | nm and 3000mm (or missing) for surface type =  |
| RSWHOEPFDNCDF RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF The significant wave height should be between 0mm and 1 latitudes between -70 and 70 degrees  | 5000mm (or missing) for surface type = ocean for   |
| RSWHOEPFDPLRMNC RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF  The significant wave height should be between 0mm and 1 latitudes between -70 and 70 degrees   | 5000 / : : ) ( / /   |
| RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF The significant wave height should be between 0mm and 1 latitudes between -70 and 70 degrees   | 5000mm (or missing) for surface type = ocean for   |
| SPHRTASCNSNCDF SPH_Rel_Time_ASC_Node_Start_v2_NetCDF Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded  | · · · · · · · · · · · · · · · · · · ·  |
| SOOHHIFHD SameOrOneHigher1HzIndexFor20HzData The 1 Hz index of a 20 Hz sample should be the same or 1  | 5000mm (or missing) for surface type = ocean for   |

SCSTODHRNCDF SequenceCounterStepTODHRNetCDF The sequence counter should be modulo 4 higher with regard to the previous sequence counter SCSTODNCDF SequenceCounterStepTODNetCDF The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter should be one s

## 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0