

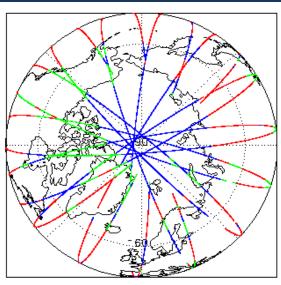
# 1. Overview

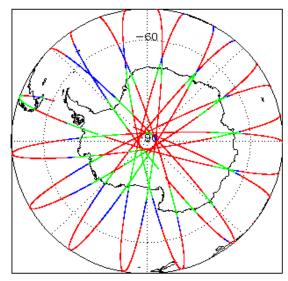
| Report Production: | 24-Jan-2022  |  |
|--------------------|--|--|
| Processor Used:    | CryoSat Ocean Processor                                      |  |
| Data Used:         | Near Real Time Ocean Products (NOP)<br>L1B & L2 Science Data |  |

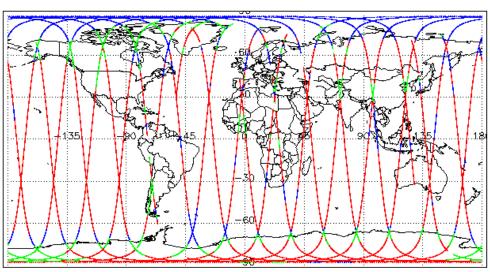
| Check                                     | L1 & L2                      |
|---|------------------------------|
| Server check: science-pds.cryosat.esa.int | Nominal                      |
| Server check: calval-pds.cryosat.esa.int  | Nominal                      |
| Product Software Check                    | 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 and 5.5 |
| Measurement Quality Flag Check            | See Section 5.6              |
| Ocean Retracking Quality Check            | See Section 5.7              |
| QCC Error/ Warning Check                  | See Section 7.2              |

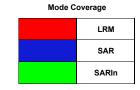
| Mission / Instru | iment News      |
|------------------|-----------------|
| 21-Jan-2022      | None            |
| 22-Jan-2022      | None            |
| 23-Jan-2022      | Nothing planned |

# 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

#### 4.2 L1B Product Header Analysis

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

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

Number of products with errors:

# 4.3 L1B Auxilary Data File Usage Check

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

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

Number of products with errors:

0

#### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

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#### 4.5 L1B Measurement Confidence Data Check

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

> Attitude Correction Missing: This flag is currently set in error for NOPR products due to a configuration issue. The attitude correction is not actually missing, This is being investigated and will be updated in the next SW update.

Number of products with errors:

| Product   | Test Failed         | Description  |
|---|---------------------|--|
| CS_OFFL_SIR_NOPM1B_20220122T064548_20220122T065118_C001 | Power scaling error | There is an error in the scaling of the L1B waveform for one or more records |

#### 4.6 L1B Waveform Group Data Check

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

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

Number of products with errors: 16

| Product   | Test Failed  | Description  |
|---|--------------|--|
| CS_OFFL_SIR_NOPM1B_20220121T235102_20220122T000635_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20220122T131459_20220122T131756_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T003500_20220122T003609_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T035430_20220122T035839_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T084643_20220122T084803_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T120412_20220122T120629_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T133958_20220122T134510_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220122T234421_20220122T234540_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T083430_20220122T083501_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T085618_20220122T085754_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T120136_20220122T120412_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T144203_20220122T144307_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T170829_20220122T170947_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T191644_20220122T191933_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T220813_20220122T220858_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220122T224213_20220122T224913_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.

| Number of products with errors.                         | <b>-</b>  | I  |
|---|---|--|
| Product   | Test Failed   | Description There is an approximate the Mann Dynamic Tenegraphy height for one on  |
| CS_OFFL_SIR_NOPM_2_20220122T040703_20220122T043425_C001 | Mean Dynamic Topography (1)   | There is an error with the Mean Dynamic Topography height for one or more records  |
| CS_OFFL_SIR_NOPM_2_20220122T153222_20220122T153329_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_20220122T003500_20220122T003609_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_20220122T021418_20220122T022009_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1)  | There is an error with the MSS height (solution 1) and the Mean Dynamic<br>Topography height (solution 1) for one or more records  |
| CS_OFFL_SIR_NOPN_2_20220122T025708_20220122T025856_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_20220122T030708_20220122T030932_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_20220122T035430_20220122T035839_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |
| CS_OFFL_SIR_NOPN_2_20220122T053628_20220122T054046_C001 | Total Geocentric Ocean Tide (GOT)   | There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records  |
| CS_OFFL_SIR_NOPN_2_20220122T061644_20220122T062017_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_20220122T075601_20220122T075921_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_20220122T080434_20220122T080558_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_20220122T084643_20220122T084803_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_20220122T094337_20220122T094445_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_20220122T112039_20220122T112232_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_20220122T120412_20220122T120629_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT)  | There is an error with the MSS height (solution 1), the Mean Dynamic<br>Topography height (solution 1) and the Total Geocentric Ocean Tide<br>height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220122T133958_20220122T134510_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_20220122T142946_20220122T143238_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_20220122T143901_20220122T144202_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_20220122T151951_20220122T152333_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT), Total Geocentric Ocean<br>Tide (FES), Non-Equilibrium Long Period<br>Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records   |
| CS_OFFL_SIR_NOPN_2_20220122T170947_20220122T171113_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_20220122T192850_20220122T193016_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_20220122T193534_20220122T193840_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_20220122T210835_20220122T211134_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_20220122T211435_20220122T211813_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_20220122T220544_20220122T220624_C001 | Mean Sea Surface (1)  | There is an error with the MSS height (solution 1) for one or more records   |
| CS_OFFL_SIR_NOPN_2_20220122T224914_20220122T225148_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_20220122T234421_20220122T234540_C001 | Mean Sea Surface (1), Mean Dynamic<br>Topography (1), Total Geocentric Ocean<br>Tide (GOT)  | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records       |
| CS_OFFL_SIR_NOPR_2_20220122T002823_20220122T003007_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_20220122T003007_20220122T003459_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_20220122T020752_20220122T021417_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_20220122T034940_20220122T035429_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_20220122T052640_20220122T053628_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_20220122T070631_20220122T071523_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_20220122T084804_20220122T085553_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_20220122T102714_20220122T103427_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_20220122T114159_20220122T114412_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_NOPR_2_20220122T120629_20220122T121336_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_20220122T134510_20220122T135117_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_20220122T152334_20220122T153221_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_20220122T170027_20220122T170804_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:

| Product   | Test Failed         | Description   |
|---|---------------------|---|
| CS_OFFL_SIR_NOPM_2_20220122T064548_20220122T065118_C001 | Power scaling error | There is an error in the scaling of the L2 waveform for one or more records |

# 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20 Hz)

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

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

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

Number of products with errors:

| Product   | Test Failed  | Description   |
|---|--|---|
| CS_OFFL_SIR_NOPM_2_20220121T235102_20220122T000635_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_20220122T000837_20220122T001759_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_20220122T003609_20220122T003718_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_20220122T004605_20220122T005701_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_20220122T011306_20220122T011658_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_20220122T012021_20220122T012821_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_20220122T013046_20220122T014543_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_20220122T020324_20220122T020444_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_20220122T022235_20220122T025623_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_20220122T025857_20220122T030105_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_20220122T030132_20220122T030708_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_20220122T030946_20220122T033454_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_20220122T040703_20220122T043425_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_20220122T044106_20220122T044544_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_20220122T044847_20220122T051651_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_20220122T052549_20220122T052640_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_20220122T054046_20220122T061344_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_20220122T062017_20220122T062550_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_20220122T062739_20220122T063337_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_20220122T070444_20220122T070630_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_20220122T071958_20220122T075342_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_20220122T075921_20220122T080434_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_20220122T080637_20220122T082616_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_20220122T085754_20220122T091836_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_20220122T091946_20220122T093143_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_20220122T093544_20220122T093921_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_20220122T093939_20220122T094336_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_20220122T094727_20220122T101437_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_20220122T101454_20220122T102157_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_20220122T102324_20220122T102604_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_20220122T103859_20220122T104858_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_20220122T105340_20220122T105512_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_20220122T105515_20220122T111119_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_20220122T111303_20220122T111821_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_20220122T111840_20220122T112039_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_20220122T112905_20220122T114158_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_20220122T114413_20220122T115634_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_20220122T115846_20220122T120031_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_20220122T122333_20220122T123400_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_20220122T123539_20220122T125010_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_20220122T125229_20220122T125733_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_20220122T125740_20220122T125751_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_20220122T130605_20220122T130702_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_20220122T131459_20220122T131756_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_20220122T132540_20220122T132751_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_20220122T132914_20220122T133612_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_20220122T135658_20220122T135749_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_20220122T140626_20220122T141013_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_20220122T141133_20220122T142931_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_20220122T143239_20220122T143650_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_20220122T143657_20220122T143705_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_20220122T143712_20220122T143901_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_20220122T144308_20220122T150916_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_20220122T154340_20220122T160901_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_20220122T161041_20220122T161605_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_20220122T161612_20220122T161937_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_20220122T162252_20220122T165512_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_20220122T171836_20220122T171931_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_20220122T172701_20220122T174049_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_20220122T174227_20220122T174841_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_20220122T175038_20220122T175845_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_20220122T180231_20220122T183608_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_20220122T191933_20220122T192811_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_20220122T194111_20220122T200345_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_20220122T200631_20220122T201607_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_20220122T202911_20220122T203204_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 |

| Basedotti Caulis  Coult   Self   Coult   Self   Coult   Coult  | CS_OFFL_SIR_NOPM_2_20220122T203657_20220122T203716_C001 | OCOG Altimeter Range Quality, OCOG | The OCOG Altimeter Range and Backscatter Quality Flags have been set |
|--|---|------------------------------------|--|
| Palmone Toping and Debrooth Cally   Palmone Toping and Debrooth Cally   Palmone Toping and Debrooth Cally   Palmone Toping   1849, 5994   per George and Cally   Palmone Toping   1849, 5994    |   | ·                                  |  |
| See   Perf.   See   NOPM 2   20201027719100   202010277   | CS_OFFL_SIR_NOPM_2_20220122T204755_20220122T205237_C001 |                                    |  |
| Sec.   Col.      | CS_OFFL_SIR_NOPM_2_20220122T205425_20220122T210559_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Set, Der L. S.R., NOPML 2, 0020127121692, 0020127121693, 00001  Do Control Milmeler Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127121693, 00001  Do Control Milmeler Range and Basessone County  All medic Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127122461, 0001  Does All medic Range and Basessone County  All medic Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127122461, 0001  Does All medic Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127123932, 0001  Does All medic Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127123932, 0001  Does All medic Range and Basessone County  Control Sign, NOPML 2, 0020127121692, 0020127123932, 0001  Does All medic Range and Basessone County  All medic Range and Basessone County  Control Sign, NOPML 2, 00201271239102, 0020127123932, 0001  Does All medic Range County, 0000  Does All medic Range and Basessone County  Eng. Does All medic Range and Basessone County  Control Sign, NOPML 2, 00201271231762, 00201271231732, 0001  Does All medic Range and Basessone County  Eng. Does All medic Range and Basessone County  Does All medic Range and | CS_OFFL_SIR_NOPM_2_20220122T212102_20220122T214751_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| So. OFTL. SR. NOFM. 2. 20201227121602_2020122712160_2012012121610_2012012712160_2012012710160_201201 | CS_OFFL_SIR_NOPM_2_20220122T214930_20220122T215234_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Co. OFFL_SIR_NOPM_2_20229122712804_20229122712804_C001   Co. OFFL_SIR_NOPM_2_20229122712806_30229122712804_C001   Co. OFFL_SIR_NOPM_2_20229122712806_30229122712804_C001   Co. OFFL_SIR_NOPM_2_20229122712806_30229122712804_C001   Co. OFFL_SIR_NOPM_2_20229122712806_30229122712806_C002912712806_C0   | CS_OFFL_SIR_NOPM_2_20220122T215602_20220122T215603_C001 |                                    |  |
| GS_OFFL_SIR_NOPM_2_202291227129149_202291227129144_CD01  GS_OFFL_SIR_NOPM_2_202291227129149_202291227129152_CD01  GS_OFFL_SIR_NOPM_2_2022912271291612_202291227129152_CD01  GS_OFFL_SIR_NOPM_2_2022912271291612_202291227129162_CD01  GS_OFFL_SIR_NOPM_2_2022912271291612_202291227129162_CD01  GS_OFFL_SIR_NOPM_2_202291227129162_20229122712916_CD01  GS_OFFL_SIR_NOPM_2_20229122712916_CD01  GS_OFFL_SIR_NOPM_2_20229122712916_CD01  GS_OFFL_SIR_NOPM_2_202291227129344_CD01  GS_OFFL_SIR_NOPM_2_202291227103602_CD01  GS_OFFL_SIR_NOPM_2_202291227103602_CD01  GS_OFFL_SIR_NOPM_2_2022 | CS_OFFL_SIR_NOPM_2_20220122T221052_20220122T221746_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Caulity  CS_OFFL_SIR_NOPM_2_20220122723012_2022127173052_C011  CS_OFFL_SIR_NOPM_2_20220122723016_20221271273052_C011  CS_OFFL_SIR_NOPM_2_20220122723016_20221271273052_C011  CS_OFFL_SIR_NOPM_2_20220122723016_20221271273052_C011  CS_OFFL_SIR_NOPM_2_20220122723016_20221271273052_C011  CS_OFFL_SIR_NOPM_2_20220127273016_20220127123346_C011  CS_OFFL_SIR_NOPM_2_20220127273346_20220127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_20220127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_20220127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_00220127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_0020127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_0020127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_0020127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_0020127123346_C011  CS_OFFL_SIR_NOPM_2_20220127123346_0020127123346_C011  CS_OFFL_SIR_NOPM_2_202201271235101_0022012710306_C011  CS_OFFL_SIR_NOPM_2_2022012710300_002012710306_C011  CS_OFFL_SIR_NOPM_2_2022012710300_002012710306_C011  CS_OFFL_SIR_NOPM_2_2022012710300_002012710306_C011  CS_OFFL_SIR_NOPM_2_2022012710300_002012710306_C011  CS_OFFL_SIR_NOPM_2_2022012710300_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_002012710306_C011  CS_OFFL_SIR_NOPM_2_20220127103000_0020127103000_0011  CS_OFFL_SIR_NOPM_2_20220127104000_0020127103000_0011  CS_OFFL_SIR_NOPM_2_2022012710400 | CS_OFFL_SIR_NOPM_2_20220122T221800_20220122T224213_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and the COGO Altimeter Range and Backscatter Quality Flags have been at the common and the COGO Altimeter Range and Backscatter Quality Flags have been at the common and the COGO Altimeter Range and Backscatter Quality Flags have been at the common and the comm | CS_OFFL_SIR_NOPM_2_20220122T225148_20220122T225342_C001 |                                    |  |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range and Backscatter Quality Flags have been set on the COG Altimeter Range Rang | CS_OFFL_SIR_NOPM_2_20220122T230012_20220122T230532_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, COGG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPM_2_20220122T233440_20220122T233495_C001  CS_OFFL_SIR_NOPM_2_20220122T233441_20220122T233495_C001  CS_OFFL_SIR_NOPM_2_20220122T2364941_20220122T234945_C001  CS_OFFL_SIR_NOPM_2_20220122T2364941_20220122T234945_C001  CS_OFFL_SIR_NOPM_2_20220122T236104_20220122T00549_C001  CS_OFFL_SIR_NOPM_2_20220122T0510703_20220122T00549_C001  CS_OFFL_SIR_NOPM_2_20220122T0510703_20220122T01300_C001  CS_OFFL_SIR_NOPM_2_20220122T010703_20220122T01300_C001  CS_OFFL_SIR_NOPM_2_20220122T04807_20220122T03100_C001  CS_OFFL_SIR_NOPM_2_20220122T04807_20220122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T04807_20220122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T0330_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T144702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T144702_20220122T104824_C001  CS_OFFL_SIR_NOPM_2_20220122T100002_20220122T100002_C0020122T100002_C0020122T114415_C001  CS_OFFL_SIR_NOPM_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPM_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPM_2_20220122T1100002_20220122T1100002_C0020122T1100002_C0020122T114412_C001  CS_OFFL_SIR_NOPM_2_20220122T1100002_20220122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C0020122T1100002_C00002_C000000000000000 | CS_OFFL_SIR_NOPM_2_20220122T230625_20220122T231703_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality  CS_OFFL_SIR_NOPM_2_20220122T234541_20220122T234945_C001  CS_OFFL_SIR_NOPM_2_20220122T235104_20220122T3000548_C001  CS_OFFL_SIR_NOPM_2_20220122T235104_20220122T000548_C001  CS_OFFL_SIR_NOPM_2_20220122T017032_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T017032_20220122T013010_C001  CS_OFFL_SIR_NOPM_2_20220122T0170821_20220122T013010_C001  CS_OFFL_SIR_NOPM_2_20220122T0170821_20220122T013010_C001  CS_OFFL_SIR_NOPM_2_20220122T048007_20220122T048040_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T144159_20220122T14412_C001  CS_OFFL_SIR_NOPM_2_20220122T144159_20220122T114412_C001  CS_OFFL_SIR_NOPM_2_20220122T144159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T160002_20220122T1160026_C001  CS_OFFL_SIR_NOPR_2_20220122T160002_20220122T100066_C001  CS_OFFL_SIR_NOPR_2_20220122T160002_20220122T10066_C001  CC_OGA Allimeter Range and Backscatter Quality Flags have been set for one or more records  CC_OFFL_SIR_NOPR_2_20220122T160002_2020122T10066_C001  CC_OGA Allime | CS_OFFL_SIR_NOPM_2_20220122T231706_20220122T232746_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality  CS_OFFL_SIR_NOPM_2_20220122T235104_20220122T000548_C001  CS_OFFL_SIR_NOPM_2_20220122T235104_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T010703_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T010703_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T010703_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T012821_20220122T01306_C001  CS_OFFL_SIR_NOPM_2_20220122T012821_20220122T01300_C001  CS_OFFL_SIR_NOPM_2_20220122T012821_20220122T01300_C001  CS_OFFL_SIR_NOPM_2_20220122T012820_20122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T034940_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPM_2_20220122T144159_20220122T14412_C001  CS_OFFL_SIR_NOPM_2_20220122T14159_20220122T14412_C001  CS_OFFL_SIR_NOPM_2_20220122T14159_20220122T14412_C001  CS_OFFL_SIR_NOPM_2_20220122T14159_20220122T114412_C001  CS_OFFL_SIR_NOPM_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T114159_2022012T114412_C001  CS_OFFL_SIR_NOPR_2_2022012T170007_2022012T170007_C001  CS_OFFL_SIR_NOPR_2_2022012T170007_2022012T170007_C001  CS_OFFL_SIR_ | CS_OFFL_SIR_NOPM_2_20220122T233340_20220122T233345_C001 |                                    | , ,  |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_NOPN_2_2022012ZT010703_2022012ZT01306_C001  CS_OFFL_SIR_NOPN_2_2022012ZT012821_2022012ZT013010_C001  CS_OFFL_SIR_NOPN_2_2022012ZT012821_2022012ZT013010_C001  CS_OFFL_SIR_NOPN_2_2022012ZT012821_2022012ZT013010_C001  CS_OFFL_SIR_NOPN_2_2022012ZT012821_2022012ZT034940_C001  CS_OFFL_SIR_NOPN_2_2022012ZT034907_2022012ZT034940_C001  CS_OFFL_SIR_NOPN_2_2022012ZT044702_2022012ZT044824_C001  CS_OFFL_SIR_NOPN_2_2022012ZT044702_2022012ZT044824_C001  CS_OFFL_SIR_NOPN_2_2022012ZT044702_2022012ZT044824_C001  CS_OFFL_SIR_NOPN_2_2022012ZT044702_2022012ZT044824_C001  CS_OFFL_SIR_NOPN_2_2022012ZT122004_2022012ZT12333_C001  CS_OFFL_SIR_NOPN_2_2022012ZT122004_2022012ZT12333_C001  CS_OFFL_SIR_NOPN_2_2022012ZT122004_2022012ZT12333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT12004_2022012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112004_202012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112004_202012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112004_202012ZT112004_202012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT112004_2022012ZT112333_C001  CS_OFFL_SIR_NOPR_2_2022012ZT110002_202012ZT110002_2001  CS_OFFL_SIR_NOPR_2_2022012ZT110002_202012ZT110002_2001  CS_OFFL_SIR_NOPR_2_2022012ZT110002_202012ZT110002_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10002_202012ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT110004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT10004_2001  CS_OFFL_SIR_NOPR_2_2022012ZT10004_200102ZT1 | CS_OFFL_SIR_NOPM_2_20220122T234541_20220122T234945_C001 |                                    |  |
| Backscatter Quality  CS_OFFL_SIR_NOPN_2_20220122T012821_20220122T013010_C001  CS_OFFL_SIR_NOPN_2_20220122T034907_20220122T034940_C001  CS_OFFL_SIR_NOPN_2_20220122T034907_20220122T034940_C001  CS_OFFL_SIR_NOPN_2_20220122T034907_20220122T034940_C001  CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_C001  CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T044824_C001  CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T12333_C001  CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T12333_C001  CS_OFFL_SIR_NOPN_2_20220122T144159_20220122T144412_C001  CS_OFFL_SIR_NOPR_2_20220122T1414159_20220122T14412_C001  CS_OFFL_SIR_NOPR_2_20220122T1414159_20220122T144412_C001  CS_OFFL_SIR_NOPR_2_20220122T1414159_20220122T1740947_C001  CS_OFFL_SIR_NOPR_2_20220122T140992_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170927_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T1 | CS_OFFL_SIR_NOPM_2_20220122T235104_20220123T000548_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, COCG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records  CS_OFFL_SIR_NOPN_2_20220122T034907_20220122T034940_CO01  CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_CO01  CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_CO01  CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_CO01  CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T12333_CO01  CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T122333_CO01  CS_OFFL_SIR_NOPN_2_20220122T1122004_20220122T114412_CO01  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_CO01  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_CO01  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_CO01  CS_OFFL_SIR_NOPR_2_20220122T1160902_20220122T160926_CO01  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_CO01  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_20220122T170804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_20220122T170947_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1770027_2022012Z1710804_CO01  CS_OFFL_SIR_NOPR_2_2022012Z1710804_CO01  CS_OFFL_SIR_NOP | CS_OFFL_SIR_NOPN_2_20220122T010703_20220122T011306_C001 |                                    |  |
| and Backscatter Quality, COG Altimeter Range and Backscatter Quality Flags have been a | CS_OFFL_SIR_NOPN_2_20220122T012821_20220122T013010_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T12333_C001  CS_OFFL_SIR_NOPN_2_20220122T141159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  OCOGA Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records  The Ocean Altimeter Range and Back | CS_OFFL_SIR_NOPN_2_20220122T034907_20220122T034940_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  Altimeter Range and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_202 | CS_OFFL_SIR_NOPN_2_20220122T044702_20220122T044824_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CCGA Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG | CS_OFFL_SIR_NOPN_2_20220122T122004_20220122T122333_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  And Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001   | CS_OFFL_SIR_NOPR_2_20220122T114159_20220122T114412_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  | CS_OFFL_SIR_NOPR_2_20220122T160902_20220122T160926_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set   | CS_OFFL_SIR_NOPR_2_20220122T170027_20220122T170804_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality for one or more records  CS_OFFL_SIR_NOPR_2_202201221163/39_202201221103025_C001  Backscatter Quality for one or more records  CS_OFFL_SIR_NOPR_2_202201221185121_202201221185150_C001  OCOG Altimeter Range Quality, OCOG  The OCOG Altimeter Range and Backscatter Quality Flags have been set   | CS_OFFL_SIR_NOPR_2_20220122T170829_20220122T170947_C001 | and Backscatter Quality, OCOG      | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
|  | CS_OFFL_SIR_NOPR_2_20220122T183739_20220122T183825_C001 |                                    |  |
|  | CS_OFFL_SIR_NOPR_2_20220122T185121_20220122T185159_C001 |                                    |  |

## L2 Quality Flags (20 Hz PLRM)

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

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

Number of products with errors:

78

| Product   | Test Failed   | Description   |
|---|---|---|
| CS_OFFL_SIR_NOPN_2_20220122T001800_20220122T002047_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_20220122T003500_20220122T003609_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_20220122T003718_20220122T003850_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_20220122T010703_20220122T011306_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_20220122T011756_20220122T011924_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_20220122T012821_20220122T013010_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_20220122T015524_20220122T015907_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_20220122T021418_20220122T022009_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_20220122T030106_20220122T030131_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_20220122T035430_20220122T035839_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_20220122T040134_20220122T040629_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_20220122T043638_20220122T043819_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_20220122T044544_20220122T044636_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_20220122T062550_20220122T062706_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_20220122T064409_20220122T064548_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_20220122T070343_20220122T070443_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_20220122T071524_20220122T071706_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_20220122T075601_20220122T075921_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_20220122T080434_20220122T080558_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_20220122T084643_20220122T084803_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_20220122T111123_20220122T111302_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_20220122T120412_20220122T120629_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_20220122T122004_20220122T122333_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_20220122T133958_20220122T134510_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_20220122T140126_20220122T140432_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_20220122T151746_20220122T151908_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_20220122T151951_20220122T152333_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_20220122T161937_20220122T162056_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_20220122T165513_20220122T170027_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_20220122T170804_20220122T170829_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_20220122T183608_20220122T183739_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_20220122T185159_20220122T185321_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_20220122T204423_20220122T204755_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_20220122T221006_20220122T221052_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_20220122T225343_20220122T225526_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_20220122T234421_20220122T234540_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_20220122T234945_20220122T235103_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T002823_20220122T003007_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T003007_20220122T003459_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_20220122T003851_20220122T004315_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_20220122T004403_20220122T004604_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T011752_20220122T011755_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_20220122T014543_20220122T015358_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T020752_20220122T021417_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_20220122T034535_20220122T034752_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_20220122T034812_20220122T034907_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_20220122T034940_20220122T035429_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_20220122T043425_20220122T043637_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_20220122T052337_20220122T052549_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T052640_20220122T053628_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_20220122T070023_20220122T070337_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
|---|---|---|
| CS_OFFL_SIR_NOPR_2_20220122T070631_20220122T071523_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_20220122T071707_20220122T071822_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T080559_20220122T080636_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_20220122T084804_20220122T085553_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_20220122T094445_20220122T094532_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_20220122T102158_20220122T102225_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_20220122T102714_20220122T103427_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_20220122T112232_20220122T112905_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_20220122T114159_20220122T114412_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T115635_20220122T115846_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T120136_20220122T120412_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_20220122T120629_20220122T121336_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_20220122T132442_20220122T132540_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T133613_20220122T133624_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T133747_20220122T133958_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_20220122T134510_20220122T135117_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_20220122T135125_20220122T135226_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T135807_20220122T135815_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T152334_20220122T153221_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_20220122T170027_20220122T170804_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_20220122T170829_20220122T170947_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_20220122T171114_20220122T171241_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_20220122T201608_20220122T201747_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T203204_20220122T203541_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |
| CS_OFFL_SIR_NOPR_2_20220122T203848_20220122T203931_C001 | OCOG Altimeter Range Quality PLRM,<br>OCOG Backscatter Quality  | The OCOG Range and Backscatter Quality Flags have been set for one or more records  |

CS\_OFFL\_SIR\_NOPR\_2\_20220122T210741\_20220122T210835\_C001

CS\_OFFL\_SIR\_NOPR\_2\_20220122T224213\_20220122T224913\_C001

Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

The Ocean Altimeter Range, 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:

182

# 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.

umber of products with errors:

## L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors:

#### 7. NOP QCC Report Analysis

The Quality Control for CryoSat (QCC) facility performs a primary survey of data products immediately after production by the PDS and LTA processing facilities. A list of the tests which raised errors or warnings is provided below.

| Product type | No. Products | No. QCC Reports | No. Valid | No. Warnings | No. Errors |
|--------------|--------------|-----------------|-----------|--------------|------------|
| SIR_NOPM1B   | 225          | 225             | 6         | 219          | 0          |
| SIR_NOPR1B   | 113          | 113             | 0         | 113          | 0          |
| SIR_NOPN1B   | 104          | 104             | 1         | 103          | 0          |
| SIR_NOPM_2   | 225          | 225             | 172       | 53           | 0          |
| SIR_NOPR_2   | 113          | 113             | 41        | 72           | 0          |
| SIR NOPN 2   | 104          | 104             | 41        | 63           | 0          |

#### 7.1 QCC Errors

Number of QCC reports with errors:

0

## 7.2 QCC Warnings

### Number of QCC reports with warnings

1675

#### Total number of occurrences of each warning

| Product Type | BCSHNCDF | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNC | RBSZOPOEPNCDF |
|--------------|----------|--------------|------------|----------|-----------------|-------------------|---------------|
| SIR_NOPM1B   | 219      | 0            | 0          | 0        | 0               | 0                 | 0             |
| SIR_NOPM_2   | 0        | 38           | 37         | 0        | 47              | 0                 | 45            |
| SIR_NOPN1B   | 99       | 0            | 0          | 0        | 0               | 0                 | 0             |
| SIR_NOPN_2   | 0        | 8            | 26         | 5        | 22              | 29                | 15            |
| SIR_NOPR1B   | 110      | 0            | 0          | 0        | 0               | 0                 | 0             |
| SIR_NOPR_2   | 0        | 24           | 37         | 1        | 24              | 21                | 14            |

| _ |              |              |                 |                    |                    |                 |                 |               |
|---|--------------|--------------|-----------------|--------------------|--------------------|-----------------|-----------------|---------------|
|   | Product Type | RNELPOTONCDF | RPEPOPFDLRMNCDF | RPEPOPFDPLRMSARNCE | RPEPOPFDPLRMSINNCD | RPEPOPFDSARNCDF | RPEPOPFDSINNCDF | RPEPOPLRMNCDF |
| Ī | SIR_NOPM1B   | 0            | 0               | 0                  | 0                  | 0               | 0               | 0             |
|   | SIR_NOPM_2   | 1            | 32              | 0                  | 0                  | 0               | 0               | 23            |
|   | SIR_NOPN1B   | 0            | 0               | 0                  | 0                  | 0               | 0               | 0             |
|   | SIR_NOPN_2   | 1            | 0               | 0                  | 15                 | 0               | 29              | 0             |
|   | SIR_NOPR1B   | 0            | 0               | 0                  | 0                  | 0               | 0               | 0             |
|   | SIR NOPR 2   | 4            | 0               | 40                 | 0                  | 47              | 0               | 0             |

| Product Type | RPEPOPSARNCDF | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF | RSWHOEPFDNCDF |
|--------------|---------------|---------------|------------|--------------|------------------|------------|---------------|
| SIR_NOPM1B   | 0             | 0             | 0          | 0            | 0                | 0          | 0             |
| SIR_NOPM_2   | 0             | 0             | 3          | 25           | 0                | 3          | 37            |
| SIR_NOPN1B   | 0             | 0             | 0          | 0            | 0                | 0          | 0             |
| SIR_NOPN_2   | 0             | 20            | 14         | 39           | 46               | 28         | 25            |
| SIR_NOPR1B   | 0             | 0             | 0          | 0            | 0                | 0          | 0             |
| SIR NOPR 2   | 39            | 0             | 2          | 56           | 32               | 11         | 29            |

| Product Type | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SPHRTASCNSNCDF | SOOHHIFHD | SCSTODHRNCDF | SCSTODNCDF | - |
|--------------|-------------------|-------------|----------------|-----------|--------------|------------|---|
| SIR_NOPM1B   | 0                 | 0           | 1              | 0         | 0            | 0          |   |
| SIR_NOPM_2   | 0                 | 4           | 1              | 0         | 0            | 0          |   |
| SIR_NOPN1B   | 0                 | 0           | 0              | 0         | 48           | 0          |   |
| SIR_NOPN_2   | 25                | 10          | 0              | 0         | 0            | 0          |   |
| SIR_NOPR1B   | 0                 | 0           | 0              | 0         | 113          | 6          |   |
| SIR NOPR 2   | 40                | 1           | 0              | 4         | 0            | 0          |   |

| Test Description Key:   | l'est Description Key:                                      |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|
| Abbreviation            | Test name   | Details  |  |  |  |  |  |
| BCSHNCDF                | BurstCounterStep20HzNetCDF                                  | The burst counter should be one higher with regard to the previous burst counter   |  |  |  |  |  |
| MVIOEPFDNCDF            | MissingValueIntOceanExcludingPolarFD2NetCDF                 | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees                               |  |  |  |  |  |
| MVIOEPNCDF              | MissingValueIntOceanExcludingPolarNetCDF                    | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees                               |  |  |  |  |  |
| MVIONCDF                | MissingValueIntOceanNetCDF                                  | The value should not be a 'missing value' for surface type 0 only  |  |  |  |  |  |
| RBSZOPOEPFDNCDF         |   | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |  |  |  |  |  |
| RBSZOPOEPFDPLRM<br>NCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |  |  |  |  |  |
| RBSZOPOEPNCDF           |   | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |  |  |  |  |  |

| RNELPOTONCDF            | RangeNELPOceanTideOceanNetCDF                              | The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean             |
|-------------------------|--|--|
| RPEPOPFDLRMNCDF         | RangePeakinessExcludingPolarOPFD2LRMNetCDF                 | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                    |
| RPEPOPFDPLRMSAR<br>NCDF | RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF             | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RPEPOPFDPLRMSINN<br>CDF | RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF             | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RPEPOPFDSARNCDF         | RangePeakinessExcludingPolarOPFD2SARNetCDF                 | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RPEPOPFDSINNCDF         | RangePeakinessExcludingPolarOPFD2SINNetCDF                 | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RPEPOPLRMNCDF           | RangePeakinessExcludingPolarOPLRMNetCDF                    | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                    |
| RPEPOPSARNCDF           | RangePeakinessExcludingPolarOPSARNetCDF                    | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RPEPOPSINNCDF           | RangePeakinessExcludingPolarOPSINNetCDF                    | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees                   |
| RSSBCONCDF              | RangeSeaStateBiasCorrectionOceanNetCDF                     | The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean   |
| RSSHAOFDNCDF            | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF                 | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean                                    |
| RSSHAOFDPLRMNCD<br>F    | RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF             | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean                                    |
| RSSHAONCDF              | RangeSeaSurfaceHeightAnomalyOceanNetCDF                    | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean                                    |
| RSWHOEPFDNCDF           | RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF     | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RSWHOEPFDPLRMNC<br>DF   | RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RSWHOEPNCDF             | RangeSignificantWaveHeightOceanExcludingPolarNetCDF        | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| SPHRTASCNSNCDF          | SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF                       | Rel_Time_ASC_Node_Stop mismatch  |
| SOOHHIFHD               | SameOrOneHigher1HzIndexFor20HzData                         | The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample   |
| SCSTODHRNCDF            | SequenceCounterStepTODHRNetCDF                             | The sequence counter should be modulo 4 higher with regard to the previous sequence counter  |
| SCSTODNCDF              | SequenceCounterStepTODNetCDF                               | The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter  |

# 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0