

1. Overview

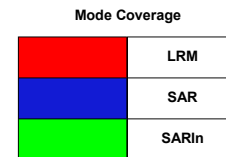
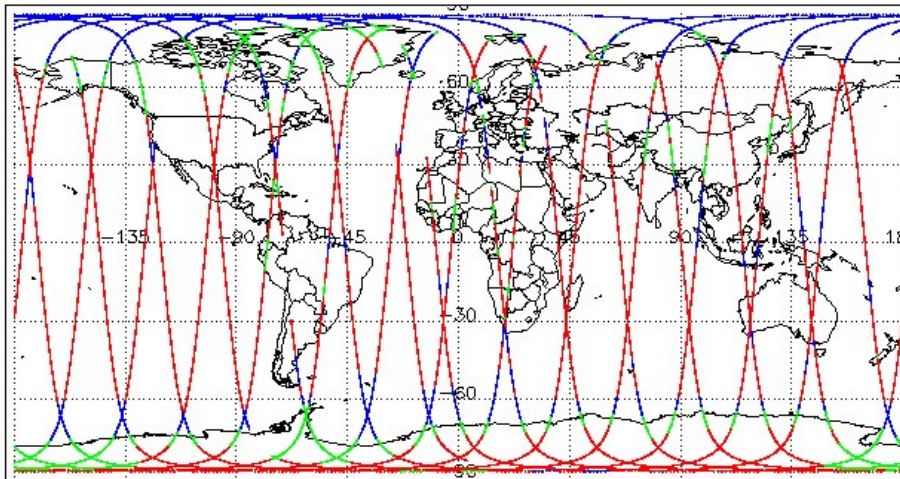
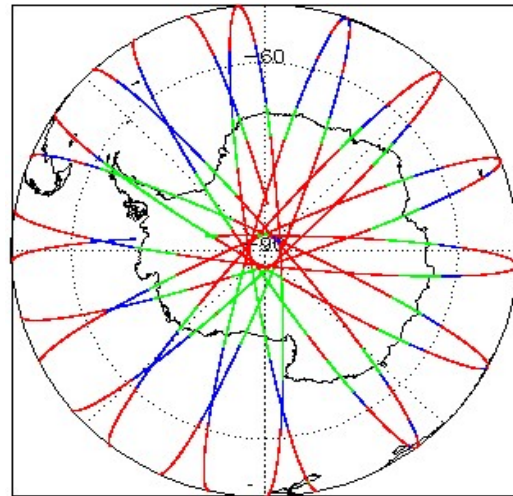
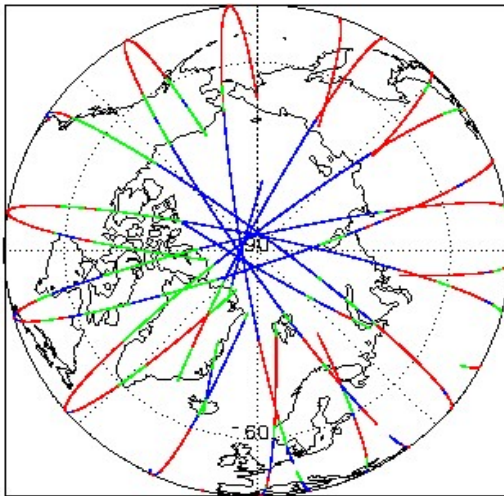
| | |
|--------------------|--|
| Report Production: | 04-Aug-2022 |
| Processor Used: | CryoSat Ocean Processor |
| Data Used: | Near Real Time Ocean Products (NOP) L1B & L2 Science Data |

| 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 7.1 and 7.2 |

Mission / Instrument News

| | |
|-------------|---|
| 01-Aug-2022 | None |
| 02-Aug-2022 | None |
| 03-Aug-2022 | SIRAL unavailability due to orbit manoeuvre 16:29:46 - 18:15:58 |

2. Global Coverage



3. Instrument Configuration

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

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

4. NOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

Number of products with errors: 0

4.2 L1B Product Header Analysis

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

> **L1B Processing Quality HR:** The l1b_proc_flag_hr flag is currently set all L1B NOPR and NOPN products because the l1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors: 0

4.3 L1B 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.

> **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: 0

4.5 L1B Measurement Confidence Data Check

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

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

Number of products with errors: 2

| Product | Test Failed | Description |
|---|---------------------|--|
| CS_OFFL_SIR_NOPM1B_20220802T052727_20220802T053653_C001 | Power scaling error | There is an error in the scaling of the L1B waveform for one or more records |
| CS_OFFL_SIR_NOPM1B_20220802T202906_20220802T203041_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: 20

| Product | Test Failed | Description |
|---|--------------|--|
| CS_OFFL_SIR_NOPM1B_20220802T074111_20220802T080620_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20220802T102538_20220802T103712_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20220802T233702_20220802T234145_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T004510_20220802T004623_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T022040_20220802T022538_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T031821_20220802T032433_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T040013_20220802T040424_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T071346_20220802T071940_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T091736_20220802T091836_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T153754_20220802T153853_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T154257_20220802T154509_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T172211_20220802T172700_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T204557_20220802T204719_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T220924_20220802T221050_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T230236_20220802T230644_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T235227_20220802T235338_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20220802T235518_20220802T235554_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220802T035655_20220802T040012_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220802T064001_20220802T064220_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20220802T130121_20220802T130820_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: 0

5.4 L2 Auxiliary Correction Error Check

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

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

> **ECMWF Meteo Corrections:** Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.

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

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

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

Number of products with errors: 40

| Product | Test Failed | Description |
|---|---|--|
| CS_OFFL_SIR_NOPM_2_20220802T172700_20220802T172753_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T000247_20220802T000355_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_20220802T004510_20220802T004623_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T022040_20220802T022538_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T031821_20220802T032433_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T040013_20220802T040424_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T044900_20220802T045122_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_20220802T053859_20220802T054247_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_20220802T063844_20220802T064000_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_20220802T081751_20220802T081907_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_20220802T091736_20220802T091836_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_20220802T094754_20220802T094920_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_20220802T095442_20220802T095750_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T112738_20220802T112945_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T113342_20220802T113712_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T130820_20220802T131055_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T140330_20220802T140450_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T144349_20220802T144943_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T153754_20220802T153853_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_20220802T154257_20220802T154509_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T163609_20220802T163808_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_20220802T172211_20220802T172700_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T194624_20220802T194852_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T212447_20220802T212759_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T230236_20220802T230644_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

| | | |
|---|--|--|
| CS_OFFL_SIR_NOPN_2_20220802T231217_20220802T231342_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T235227_20220802T235338_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_20220802T235518_20220802T235554_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T004624_20220802T005342_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T022539_20220802T023310_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T040424_20220802T041118_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T054247_20220802T055116_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T071941_20220802T072723_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T153857_20220802T154257_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T185717_20220802T190237_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T202525_20220802T202724_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_20220802T203624_20220802T204419_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T221449_20220802T222347_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T235555_20220802T235855_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T235855_20220803T000342_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors: 2

| Product | Test Failed | Description |
|---|---------------------|---|
| CS_OFFL_SIR_NOPM_2_20220802T052727_20220802T053653_C001 | Power scaling error | There is an error in the scaling of the L2 waveform for one or more records |
| CS_OFFL_SIR_NOPM_2_20220802T202906_20220802T203041_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: 97

| Product | Test Failed | Description |
|---|--|---|
| CS_OFFL_SIR_NOPM_2_20220801T235835_20220802T000247_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPM_2_20220802T000734_20220802T003318_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_20220802T005343_20220802T010805_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_20220802T011246_20220802T012443_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_20220802T012631_20220802T012943_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_20220802T013209_20220802T013728_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |

| | | |
|---|--|---|
| CS_OFFL_SIR_NOPN_2_20220802T063513_20220802T063519_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T131249_20220802T131552_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T140826_20220802T141020_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T145700_20220802T145838_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T195446_20220802T195612_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T220636_20220802T220658_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T222358_20220802T222416_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_NOPR_2_20220802T043013_20220802T043206_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_NOPR_2_20220802T153056_20220802T153139_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T170111_20220802T170209_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T170913_20220802T170920_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T191402_20220802T191557_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_NOPR_2_20220802T203514_20220802T203558_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |

L2 Quality Flags (20 Hz PLRM)

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

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

> **OCOG Altimeter Range and Backscatter PLRM Quality Flags:** These flags are currently set for occasional records over continental ice.

Number of products with errors: 93

| Product | Test Failed | Description |
|---|--|---|
| CS_OFFL_SIR_NOPN_2_20220802T000247_20220802T000355_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T004510_20220802T004623_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_20220802T013032_20220802T013208_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T013953_20220802T014138_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T022040_20220802T022538_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_20220802T023841_20220802T024237_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_20220802T030950_20220802T031135_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T031821_20220802T032433_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPN_2_20220802T042058_20220802T042120_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_20220802T053654_20220802T053815_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records |

| | | |
|---|--|---|
| CS_OFFL_SIR_NOPR_2_20220802T212037_20220802T212446_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T213431_20220802T213702_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T220744_20220802T220923_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T230002_20220802T230235_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_NOPR_2_20220802T231342_20220802T231723_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |

L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

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

Number of products with errors: 184

5.7 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20 Hz)

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

> Ocean Retracking Quality Flag: This flag is currently set for products falling at ocean/ land boundaries, but this is expected.

Number of products with errors: 67

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: 138

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 | 163 | 163 | 3 | 160 | 0 |
| SIR_NOPR1B | 117 | 117 | 0 | 117 | 0 |
| SIR_NOPN1B | 112 | 112 | 6 | 106 | 0 |
| SIR_NOPM_2 | 165 | 165 | 106 | 59 | 0 |
| SIR_NOPR_2 | 117 | 117 | 48 | 67 | 2 |
| SIR_NOPN_2 | 112 | 112 | 48 | 64 | 0 |

7.1 QCC Errors

Number of QCC reports with errors: 7

Total number of occurrences of each error

| Product Type | RLOBOPNCDF | RL | RL | RLOBOPNCDF | RL | RL | - | - | - | - | - |
|--------------|------------|----|----|------------|----|----|---|---|---|---|---|
| SIR_NOPR_2 | 2 | 1 | 2 | 2 | 1 | 2 | | | | | |

Test Description Key:

| Abbreviation | Test name | Details |
|--------------|--------------------------------|--|
| RLOBOPNCDF | RangeLatitudeOrBlankOP_7NetCDF | Latitude should be between -90E7 and 90E7 - NetCDF |
| RL | RangeLatitude_6 | Latitude should be between -90E6 and 90E6 |
| RL | RangeLatitude_7 | Latitude should be between -90E7 and 90E7 |

7.2 QCC Warnings

Number of QCC reports with warnings: 1754

Total number of occurrences of each warning

| Product Type | BCSHNCDF | IOHHMOOR | MVIOEPDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPEPFDNCDF | RBSZOPEPFDPLRMNCD |
|--------------|----------|----------|-------------|------------|----------|----------------|-------------------|
| SIR_NOPM1B | 160 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPM_2 | 0 | 0 | 40 | 44 | 1 | 37 | 0 |
| SIR_NOPN1B | 105 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPN_2 | 0 | 0 | 11 | 30 | 4 | 24 | 30 |
| SIR_NOPR1B | 114 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPR_2 | 0 | 2 | 34 | 38 | 1 | 36 | 29 |

| Product Type | RBSZOPEPNCDF | RNELPOTONCDF | RPEOPFDLRMNCDF | RPEOPFDPLRMSARNCDF | RPEOPFDPLRMSINNCDF | RPEOPFDSARNCDF | RPEOPFDSINNCDF |
|--------------|--------------|--------------|----------------|--------------------|--------------------|----------------|----------------|
| SIR_NOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPM_2 | 32 | 0 | 37 | 0 | 0 | 0 | 0 |
| SIR_NOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPN_2 | 20 | 0 | 0 | 0 | 26 | 0 | 34 |
| SIR_NOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPR_2 | 22 | 3 | 0 | 45 | 0 | 51 | 0 |

| Product Type | RPEOPLRMNCDF | RPEOPFSARNCDF | RPEOPFSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF |
|--------------|--------------|---------------|---------------|------------|--------------|------------------|------------|
| SIR_NOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPM_2 | 27 | 0 | 0 | 7 | 24 | 0 | 2 |
| SIR_NOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPN_2 | 0 | 0 | 25 | 15 | 45 | 53 | 26 |
| SIR_NOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_NOPR_2 | 0 | 44 | 0 | 5 | 56 | 37 | 10 |

| Product Type | RSWHOEPFDCDF | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SOHHIFHD | SCSTODHRNCDF | SCSTODNCDF | - |
|--------------|--------------|-------------------|-------------|----------|--------------|------------|---|
| SIR_NOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | |
| SIR_NOPM_2 | 37 | 0 | 2 | 0 | 0 | 0 | |
| SIR_NOPN1B | 0 | 0 | 0 | 0 | 46 | 0 | |
| SIR_NOPN_2 | 29 | 31 | 15 | 4 | 0 | 0 | |
| SIR_NOPR1B | 0 | 0 | 0 | 0 | 117 | 5 | |
| SIR_NOPR_2 | 36 | 43 | 1 | 2 | 0 | 0 | |

| Test Description Key: | | |
|-----------------------|---|--|
| Abbreviation | Test name | Details |
| BCSHNCDF | BurstCounterStep20HzNetCDF | The burst counter should be one higher with regard to the previous burst counter |
| IOHHMOOR | IndexOf1Hzin20HzMappingOutOfRange | The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1) |
| MVIOEPFDCDF | 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 |
| RBSZOPEPDCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RBSZOPEPDLRMNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RBSZOPEPNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF | 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 |
| RPEOPFDLRMNCDF | RangePeakinessExcludingPolarOPFD2LRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPFDPLRMSARNCDF | RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPFDPLRMSINNCDF | RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPFDSARNCDF | RangePeakinessExcludingPolarOPFD2SARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPFDSINNCDF | RangePeakinessExcludingPolarOPFD2SINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPLRMNCDF | RangePeakinessExcludingPolarOPLRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPSARNCDF | RangePeakinessExcludingPolarOPSARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RPEOPSINNCDF | 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 |
| RSSHAOFDCDF | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean |
| RSSHAOFDLRMNCDF | 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 |
| RSWHOEPDCDF | RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees |
| RSWHOEPDLRMNCDF | 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 |
| SOHHIFHD | 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

Image filename paths:

[C:\Users\MWilliams\Documents\CRYOSAT_Local\C2QC_Reports\NOPX\](#)

[C:\Users\MWilliams\Documents\CRYOSAT_Local\C2QC_Reports\NOPX\2022-08\CS_OFFL_REP_DAYNOX_20220802T000000_20220803T000000\](#)

Filenames used by macro for retrieval:

global C:\Users\MWilliams\Documents\CRYOSAT_Local\C2QC_Reports\NOPX\2022-08\CS_OFFL_REP_DAYNOX_20220802T000000_20220803T000000\I2_siral_mode_global_plot.PNG

Npole C:\Users\MWilliams\Documents\CRYOSAT_Local\C2QC_Reports\NOPX\2022-08\CS_OFFL_REP_DAYNOX_20220802T000000_20220803T000000\I2_siral_mode_north_pole_plot.PNG

Spole C:\Users\MWilliams\Documents\CRYOSAT_Local\C2QC_Reports\NOPX\2022-08\CS_OFFL_REP_DAYNOX_20220802T000000_20220803T000000\I2_siral_mode_south_pole_plot.PNG

C25 Cell to select to paste North Pole Map

O25 Cell to select to paste South Pole Map

C51 Cell to select to paste Global map

5.4

| | | | | | | | | | |
|-----|---------|-----|-----|-------|-----|-----|-----|-----|-----|
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 5.4 | 4.5 | 4.6 | and 5 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 |
| 1 | 1 | 0 | | | | | | | |
| 7.1 | and 7.2 | | | | | | | | |

Version history

Version 3.3 - updated to implement some formatting changes

Version 3.5 - LT -Updated to implement some formatting changes: automatic hiding of empty tables, automatic row height with a minimum row height, automatic hiding of empty rows

[Redacted]

| | <u>Test</u> | <u>Description</u> |
|------------------------------|---------------------|-----------------------------|
| CS_OFFL_SIR_NOPM1B_20220802T | Power scaling error | Attitude Correction Missing |
| CS_OFFL_SIR_NOPM1B_20220802T | Power scaling error | Backscatter error |

| | <u>Test</u> | <u>Description</u> |
|------------------------------|--------------|-----------------------|
| CS_OFFL_SIR_NOPM1B_20220802T | Loss of Echo | Echo Saturation Error |
| CS_OFFL_SIR_NOPM1B_20220802T | Loss of Echo | Loss of Echo |
| CS_OFFL_SIR_NOPM1B_20220802T | Loss of Echo | Run Time Error |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | Unknown Error |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPN1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPR1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPR1B_20220802T | Loss of Echo | |
| CS_OFFL_SIR_NOPR1B_20220802T | Loss of Echo | |

FOS Predicted Orbit (MPL_ORBPRED) used instead of DORIS Navigator Orbit (DOR_NAV)

[Redacted]

| | Test | Description |
|------------------------------------|---|-------------------|
| CS_OFFL_SIR_NOPM_2_20220802T172700 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Altimetric Wind Speed | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T000247 | Mean Dynamic Topography (1) Dry Tropospheric Correction | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T004510 | Mean Sea Surface (1), Mean Dynamic Topography (1) Dynamic Atmospheric Correction | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T022040 | Mean Sea Surface (1), Mean Dynamic Topography (1) Dynamic Atmospheric Correction, Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T031821 | Mean Sea Surface (1), Mean Dynamic Topography (1) Dynamic Atmospheric Correction, Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T040013 | Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T044900 | Mean Dynamic Topography (1) Geocentric Polar Tide | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T053859 | Mean Dynamic Topography (1) Geoid Height | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T063844 | Mean Dynamic Topography (1) Geoid Height, Total Geocentric Ocean Tide (Fixed) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T081751 | Mean Dynamic Topography (1) GIM Ionospheric Correction | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T091736 | Mean Dynamic Topography (1) GIM Ionospheric Correction, Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T094754 | Mean Dynamic Topography (1) Inverse Barometric Correction | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T095442 | Mean Sea Surface (1), Mean Dynamic Topography (1) Long Period Ocean Tide | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T112738 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T113342 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Dynamic Topography (1), Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T130820 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Dynamic Topography (1), Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T140330 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Mean Dynamic Topography (1), Total Geocentric | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T144349 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T153754 | Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T154257 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T163609 | Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T172211 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T194624 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T212447 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1), Total Geocentric Ocean | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T230236 | Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1), Total Geocentric Ocean | There is an error |

| | | |
|--|---|-------------------|
| CS_OFFL_SIR_NOPN_2_20220802T231217, Mean Sea Surface (1), Mean Dynamic Topography (1) | Mean Sea Surface (1), Total Geocentric Ocean Tide (GOT) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T235227, Total Geocentric Ocean Tide (GOT) | Mean Sea Surface (2) | There is an error |
| CS_OFFL_SIR_NOPN_2_20220802T235518, Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | Mean Sea Surface (2), Total Geocentric Ocean Tide (GOT) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T004624, Mean Sea Surface (1), Mean Dynamic Topography (1) | Non-Equilibrium Long Period Ocean Tide | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T022539, Mean Sea Surface (1), Mean Dynamic Topography (1) | Ocean Depth/Land Elevation | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T040424, Mean Sea Surface (1), Mean Dynamic Topography (1) | Ocean Loading Tide (FES) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T054247, Mean Sea Surface (1), Mean Dynamic Topography (1) | Ocean Loading Tide (GOT) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T071941, Mean Sea Surface (1), Mean Dynamic Topography (1) | Sea State Bias Correction | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T153857, Mean Sea Surface (1), Mean Dynamic Topography (1) | Solid Earth Tide | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T185717, Mean Sea Surface (1), Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (FES) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T202525, Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T203624, Mean Sea Surface (1), Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T221449, Mean Sea Surface (1), Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (GOT) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T235555, Mean Sea Surface (1), Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES) | There is an error |
| CS_OFFL_SIR_NOPR_2_20220802T235855, Mean Sea Surface (1), Mean Dynamic Topography (1) | Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES) | There is an error |

| | Test | Description |
|---|-----------------------------|---|
| CS_OFFL_SIR_NOPM_2_20220802T052727, Power scaling error | Attitude Correction Missing | The attitude heading error is too large |
| CS_OFFL_SIR_NOPM_2_20220802T202906, Power scaling error | Backscatter Error | There is an error in the backscatter data |

| | Test | Description |
|---|--|---|
| CS_OFFL_SIR_NOPM_2_20220801T235835, OCOG Altimeter Range Quality, OCOG Backscatter Quality | Ice Range Averaging Status | The Ice Range Averaging Status is not correct |
| CS_OFFL_SIR_NOPM_2_20220802T000734, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range Quality | Ocean Altimeter Range Quality | The Ocean Altimeter Range Quality is not correct |
| CS_OFFL_SIR_NOPM_2_20220802T005343, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range Quality, Ocean SSHA | Ocean Altimeter Range Quality, Ocean SSHA | The Ocean Altimeter Range Quality and Ocean SSHA are not correct |
| CS_OFFL_SIR_NOPM_2_20220802T011246, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range Quality, Ocean SSHA, SWH and Backscatter Quality | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality are not correct |
| CS_OFFL_SIR_NOPM_2_20220802T012631, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range Quality | OCOG Altimeter Range Quality | The OCOG Altimeter Range Quality is not correct |
| CS_OFFL_SIR_NOPM_2_20220802T013209, OCOG Altimeter Range Quality, OCOG Backscatter Quality | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range Quality and OCOG Backscatter Quality are not correct |

CS_OFFL_SIR_NOPM_2_20220802T014841, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter: **OCOG Altimeter Range Quality, OCOG SSHA** The OCOG Alti

CS_OFFL_SIR_NOPM_2_20220802T020312, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter: **OCOG Altimeter Range Quality, OCOG Backs** The OCOG Alti

CS_OFFL_SIR_NOPM_2_20220802T024238, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter: **Ocean Altimeter Range Quality, OCOG Altime** The Ocean anc

CS_OFFL_SIR_NOPM_2_20220802T025410, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T031135, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T032531, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T034234, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T034819, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T042408, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T043206, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T045123, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T045604, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T050319, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T055815, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T060201, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T063519, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T064220, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T071044, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T073024, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T074111, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T080937, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T082237, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T090804, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T091724, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T093937, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T094920, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T162732, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T163926, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T173841, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T180647, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T180934, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T181906, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T182236, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T185510, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T191558, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T194852, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T195735, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T203343, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T204720, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T212800, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T213702, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T213957, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T220632, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T221051, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T222512, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T223848, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T230645, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T230810, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T231724, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T232911, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T233702, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPM_2_20220802T041121, OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T063513_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T131249_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T140826_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T145700_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T195446_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T220636_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T222358_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T043013_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T153056_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T170111_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T170913_OCOG Altimeter Range Quality, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T191402_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T203514_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality

| | <u>Test</u> | <u>Description</u> |
|--|--|-----------------------|
| CS_OFFL_SIR_NOPN_2_20220802T000247_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG A | Ice Backscatter Averaging Status | The Ice Backsc |
| CS_OFFL_SIR_NOPN_2_20220802T004510_OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | Ocean Altimeter Range Quality PLRM | The Ocean Alti |
| CS_OFFL_SIR_NOPN_2_20220802T013032_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG A | Ocean altimeter range Quality PLRM, Ocean | The Ocean Alti |
| CS_OFFL_SIR_NOPN_2_20220802T013953_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG A | Ocean Altimeter Range Quality PLRM, OCOG | The Ocean Alti |
| CS_OFFL_SIR_NOPN_2_20220802T022040_OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | Ocean Altimeter Range, SSHA, SWH and Bac | The Ocean Alti |
| CS_OFFL_SIR_NOPN_2_20220802T023841_OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | OCOG Altimeter range quality PLRM | The OCOG Rar |
| CS_OFFL_SIR_NOPN_2_20220802T030950_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG A | OCOG altimeter range quality PLRM, OCOG t | The OCOG Rar |
| CS_OFFL_SIR_NOPN_2_20220802T031821_Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG A | OCOG altimeter range Quality, OCOG SSHA | The OCOG Rar |
| CS_OFFL_SIR_NOPN_2_20220802T042058_OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | | |
| CS_OFFL_SIR_NOPN_2_20220802T053654_OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | | |

CS_OFFL_SIR_NOPN_2_20220802T053859, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T071346, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T081751, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T085535, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T085740, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T091107, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T095442, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T110331, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T112738, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T113342, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T122915, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T130820, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T131719, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T143107, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T153754, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T154257, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T154632, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T155051, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T155922, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T160533, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T162548, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T170251, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T170659, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T172211, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T180523, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T180836, OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T181410_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T184645_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T204419_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T213318_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T215213_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T215538_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T220636_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T220924_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T222448_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T230236_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPN_2_20220802T233527_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPN_2_20220802T235010_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T000355_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T004624_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T012943_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T014139_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T014351_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T020106_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T022539_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T025221_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T035655_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T040424_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T042511_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T042549_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T043013_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T054247_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T062645_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T071941_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T080621_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T081907_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T091045_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T093752_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T094447_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T095751_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T105446_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T112345_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T113713_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T130121_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T142554_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T150547_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T153619_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T153706_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T153857_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T154509_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T154858_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T170212_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T172754_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T194122_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T195613_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T202525_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T203042_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T204528_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T212037_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T213431_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

CS_OFFL_SIR_NOPR_2_20220802T220744_ OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality

CS_OFFL_SIR_NOPR_2_20220802T230002_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

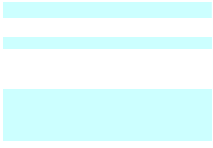
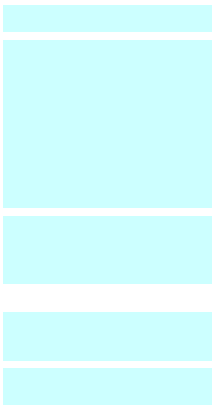
CS_OFFL_SIR_NOPR_2_20220802T231342_ Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM

LOOKUP Table

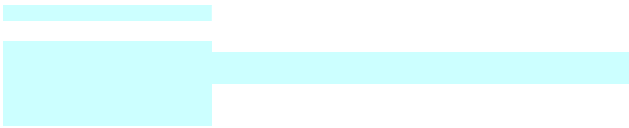
| Abbreviation | Test | Description |
|--------------|-------------------------|-----------------|
| SSRT | SPH_Stop_Record_Time | Stop_Record_T |
| SSRTL0 | SPH_Stop_Record_Time_L0 | Stop_Record_T |
| SAOO | SPHAbsoluteOrbitOrder | The start absol |
| SDTO | SPHDownlinkTimeOrder | The downlink ut |

LOOKUP Table

| Abbreviation | Test | Description |
|--------------------|--|---------------------|
| | BurstCounterStep20HzNetCDF | The burst counter |
| BCSHNCDF | MissingValueIntOceanExcludingPolarFD2NetCDF | The value should r |
| MVIOEPFDNCDF | MissingValueIntOceanExcludingPolarNetCDF | The value should r |
| MVIOEPNCDF | MissingValueIntOceanNetCDF | The value should r |
| MVIONCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolar | The backscatter si |
| RBSZOPEPFDFNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolar | The backscatter si |
| RBSZOPEPFDFLRMNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolar | The backscatter si |
| RBSZOPEPNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolar | The backscatter si |
| RNELPOTONCDF | RangeNELPOceanTideOceanNetCDF | The Non-equilibriu |
| RPEPOFDLRMNCDF | RangePeakinessExcludingPolarOPFD2LRMNetCDF | The Peakiness sh |
| RPEPOFDPLRMSARNCDF | RangePeakinessExcludingPolarOPFD2PLRMSARNNetC | The Peakiness sh |
| RPEPOFDPLRMSINNCDF | RangePeakinessExcludingPolarOPFD2PLRMSINNetC | The Peakiness sh |
| RPEPOFDSARNCDF | RangePeakinessExcludingPolarOPFD2SARNNetCDF | The Peakiness sh |
| RPEPOFDSINNCDF | RangePeakinessExcludingPolarOPFD2SINNetCDF | The Peakiness sh |
| RPEPOLRMNCDF | RangePeakinessExcludingPolarOLRMNetCDF | The Peakiness sh |
| RPEPOPSARNCDF | RangePeakinessExcludingPolarOPSARNNetCDF | The Peakiness sh |
| RPEPOPSINNCDF | RangePeakinessExcludingPolarOPSINNetCDF | The Peakiness sh |
| RSSBONCDF | RangeSeaStateBiasCorrectionOceanNetCDF | The sea state bias |
| RSSHAOFDNCDF | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF | The sea surface h |
| RSSHAOFDFLRMNCDF | RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNet | The sea surface h |
| RSSHAONCDF | RangeSeaSurfaceHeightAnomalyOceanNetCDF | The sea surface h |
| RSWHOEPFDNCDF | RangeSignificantWaveHeightOceanExcludingPolarFD2 | The significant wa |
| RSWHOEPDFLRMNCDF | RangeSignificantWaveHeightOceanExcludingPolarFD2 | The significant wa |
| RSWHOEPNCDF | RangeSignificantWaveHeightOceanExcludingPolarNet | The significant wa |
| SOHHIFHD | SameOrOneHigher1HzIndexFor20HzData | The 1 Hz index of |
| SCSTODHRNCDF | SequenceCounterStepTODHRNetCDF | The sequence cou |
| SCSTODNCDF | SequenceCounterStepTODNetCDF | The sequence count |
| IOHHMOOR | IndexOf1Hzin20HzMappingOutOfRange | The mapping of 20. |
| RIBCONCDF | RangeInverseBarometricCorrectionOceanNetCDF | The Inverse barome |
| RLPTONCDF | RangeLongPeriodTideOceanNetCDF | The Long period tid |



is not been corrected for one or more records
or in the backscatter derivation for one or more records



cho is saturated for one or more records
cho is missing for one or more records
time error for one or more records
cho has returned an unknown error for one or more records



or with the Altimetric Wind Speed for one or more records

or with the Dry Tropospheric correction for one or more records

or with the Dynamic Atmospheric Correction for one or more records

or with the Dynamic Atmospheric Correction and the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records

or with the Dynamic Atmospheric Correction, the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the ECMWF Meteo Corrections for one or more records

or with the Geocentric Polar Tide height for one or more records

or with the Geoid height for one or more records

or with the Geoid height, the Total Geocentric Ocean Tide height (solution 2: FES) and Non-equilibrium Long Period Ocean Tide height for one or more records

or with the GIM Ionospheric correction for one or more records

or with the GIM Ionospheric correction, the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the Inverse Barometric correction for one or more records

or with the Long Period Ocean Tide height for one or more records

or with the Mean Dynamic Topography height for one or more records

or with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records

or with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or with the MSS height (solution 1) for one or more records

or with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

or with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or 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

or with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records

or with the MSS height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the MSS height (solution 1) the Total Geocentric Ocean Tide (solution 1: GOT and 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or with the MSS height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records

or with the MSS height (solution 2) for one or more records

or with the MSS height (solution 2), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the Ocean Depth or Land Elevation height for one or more records

or with the Ocean Loading Tide height (solution 2: FES) for one or more records

or with the Ocean Loading Tide height (solution 1: GOT) for one or more records

or with the SSB correction for one or more records

or with the Solid Earth Tide height for one or more records

or with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records

or with the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records

or with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

or with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records

or with the Total Geocentric Ocean Tide height (solution 1: GOT and 2: FES) for one or more records

or with the Total Geocentric Ocean Tide height (solution 1: GOT and 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

is not been corrected for one or more records

or in the backscatter derivation for one or more records

Averaging Status Flag has been set for one or more records

imeter Range Quality Flag has been set for one or more records

imeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records

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

imeter Range Quality Flag has been set for one or more records

imeter Range and Backscatter Quality Flags have been set for one or more records

imeter Range, SSHA, and Backscatter Quality Flags have been set for one or more records

imeter Range and Backscatter Quality Flags have been set for one or more records

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

Backscatter Averaging Status Flag has been set for one or more records

Altimeter Range Quality Flag has been set for one or more records

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

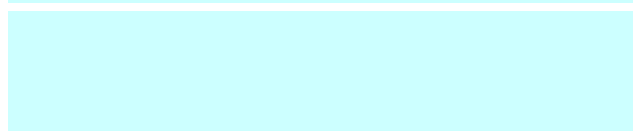
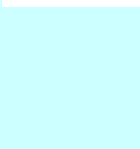
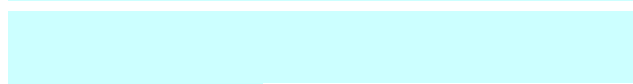
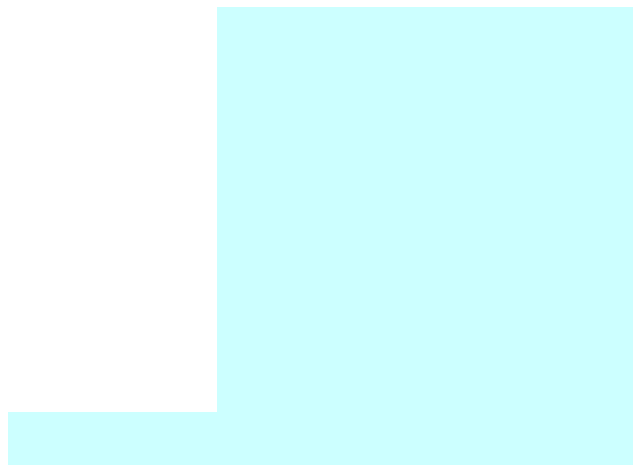
Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records

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

Altimeter Range Quality Flag has been set for one or more records

Altimeter Range and Backscatter Quality Flags have been set for one or more records

Altimeter Range, SSHA, and Backscatter Quality Flags have been set for one or more records



Time mismatch between DBL and HDR
Time mismatch between DBL and HDR
The orbit should be before the end orbit
The start time should be before the end time



|

|

|

should be one higher with regard to the previous burst counter

not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees

not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees

not be a 'missing value' for surface type 0 only

sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

3m long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean

should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sea level correction should be between -500mm and 0mm (or missing) for surface type = ocean

sea level height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean

sea level height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean

sea level height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean

sea level height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sea level height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sea level height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

sea level height at a 20 Hz sample should be the same or 1 higher than its previous sample

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

sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

1 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)

sea level correction should be between -2000mm and 2000mm (or missing) for surface type = ocean - NetCDF

sea level correction should be between -2000mm and 2000mm (or missing) for surface type = ocean - NetCDF

sea level height should be between -50mm and 50mm (or missing) for surface type = ocean - NetCDF

