

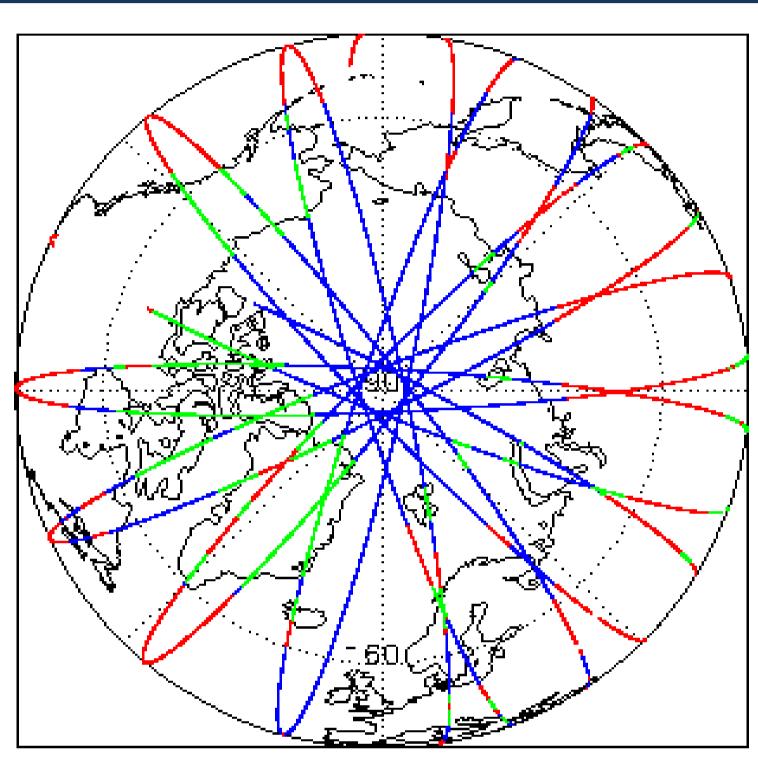
1. Overview

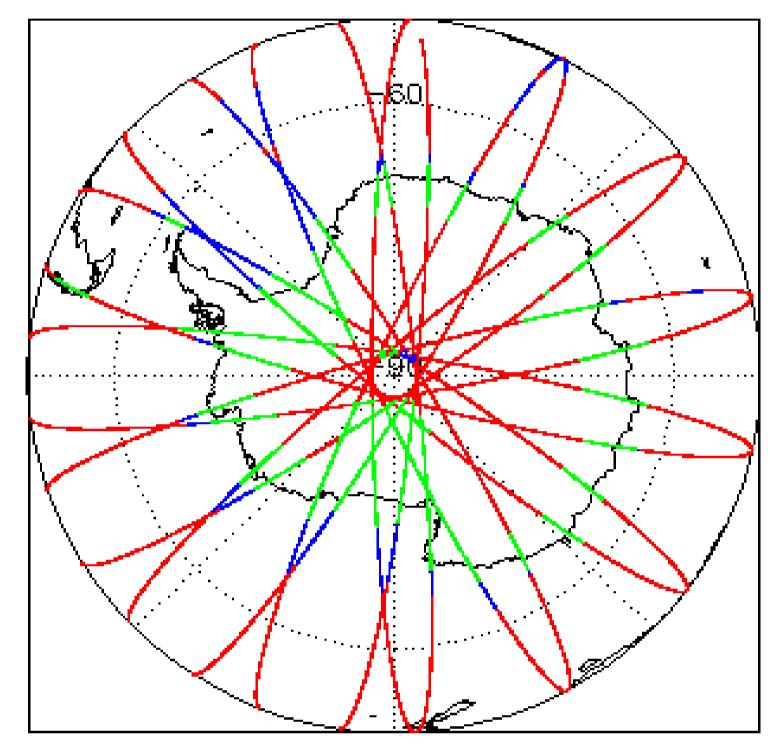
| Report Production: | 15-Mar-2021 | |
|--------------------|---|--|
| Processor Used: | CryoSat Ocean Processor | |
| Data Used: | Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data | |

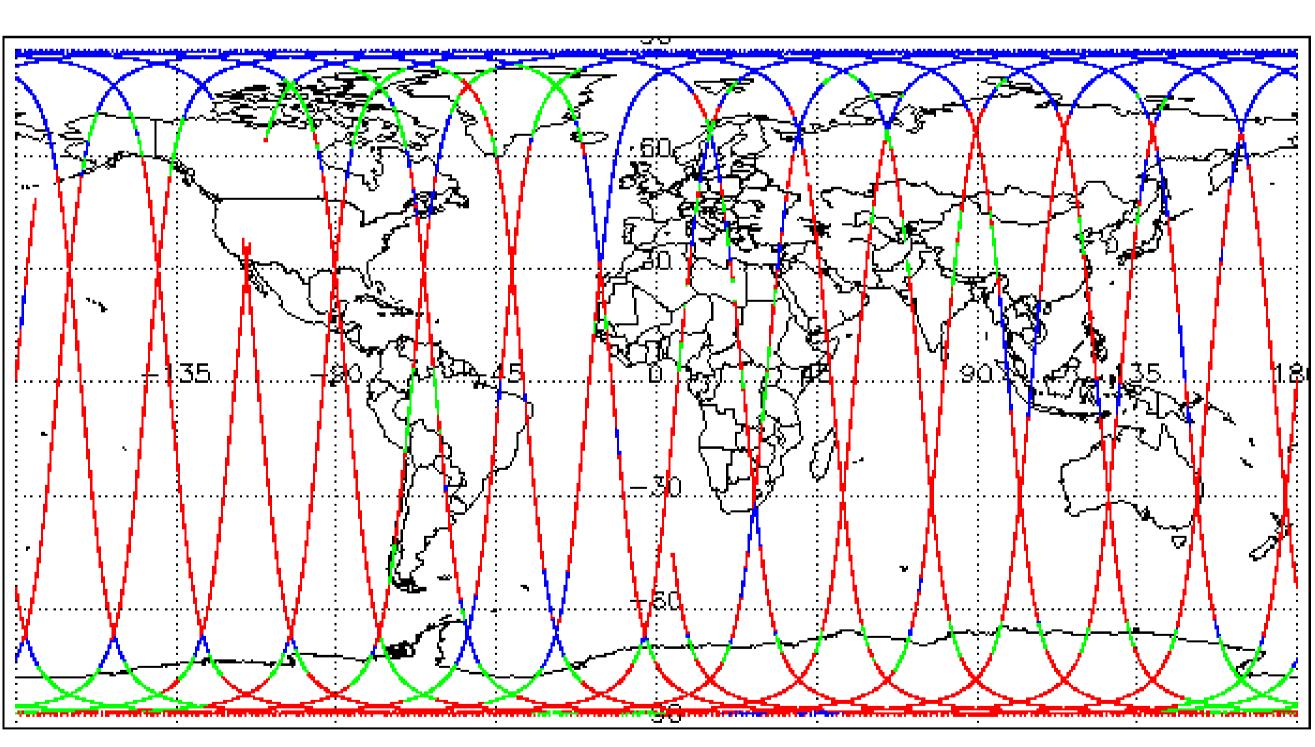
| Check | L1 & L2 | P2P |
|--|-------------------------|-------------------------|
| Server check: science-pds.cryosat.esa.int | Nominal | Nominal |
| Server check: calval-pds.cryosat.esa.int | Nominal | Nominal |
| Product Software Check | Nominal | Nominal |
| Product Format Check | Nominal | Nominal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

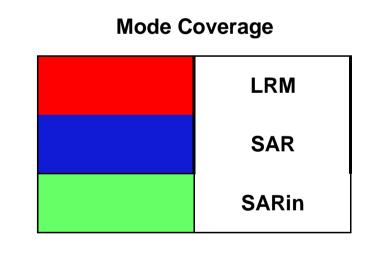
| N | Mission / Instrument News | | |
|---|---------------------------|-----------------|--|
| | 10-Mar-2021 | None | |
| | 11-Mar-2021 | None | |
| | 12-Mar-2021 | Nothing planned | |

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

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 IOPR and IOPN 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.

Number of products with errors:

4.4 L1B Auxiliary Correction Error Check

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

0

0

Number of products with errors:

4.5 L1B Measurement Confidence Data Check

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

Attitude Correction Missing: This flag is currently set in error for IOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

Number of products with errors:

4.6 L1B Waveform Group Data Check

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

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

Number of products with errors:

27

| Product | Test Failed | Description |
|---|--------------|--|
| CS_OFFL_SIR_IOPM1B_20210311T100032_20210311T100209_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPM1B_20210311T153845_20210311T155355_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPM1B_20210311T155624_20210311T160546_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPM1B_20210311T203618_20210311T210520_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T012220_20210311T012629_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T030432_20210311T030529_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T094636_20210311T094700_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T112603_20210311T112655_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T135254_20210311T135829_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T153707_20210311T153845_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T162249_20210311T162357_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T180205_20210311T180759_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T193535_20210311T193559_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T212420_20210311T212823_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPN1B_20210311T225121_20210311T225225_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T043439_20210311T043539_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T043722_20210311T043851_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T080051_20210311T080838_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T094700_20210311T095203_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T101806_20210311T102108_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T141424_20210311T141515_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T142911_20210311T143109_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T143112_20210311T143350_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T162612_20210311T163046_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T211117_20210311T211317_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T224212_20210311T224314_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_IOPR1B_20210311T225430_20210311T230312_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| | | |

5. IOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors: 0

5.2 L2 Product Header Analysis

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

Number of products with errors:

5.3 L2 Auxiliary Data File Usage Check

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

5.4 L2 Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors: 53

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_IOPM_2_20210311T153845_20210311T155355_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPM_2_20210311T155624_20210311T160546_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_IOPN_2_20210311T003250_20210311T003711_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T004254_20210311T004415_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T012220_20210311T012629_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T022031_20210311T022218_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T030432_20210311T030529_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T035836_20210311T040100_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T044228_20210311T044439_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T052843_20210311T053057_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T053738_20210311T054205_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T061911_20210311T062303_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T070900_20210311T071134_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T071855_20210311T072038_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T085755_20210311T085933_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T102802_20210311T102920_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T103453_20210311T103810_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T120724_20210311T120840_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T121349_20210311T121702_C001 | Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FFS), Non-Equilibrium Long Period | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T134822_20210311T135057_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T144341_20210311T144842_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T152717_20210311T153002_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T165741_20210311T170028_C001 | Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- | There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T170550_20210311T170805_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T180205_20210311T180759_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T185454_20210311T185721_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T194220_20210311T194623_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| | | |

| CS_OFFL_SIR_IOPN_2_20210311T202425_20210311T202607_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
|---|--|--|
| CS_OFFL_SIR_IOPN_2_20210311T212420_20210311T212823_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPN_2_20210311T220436_20210311T220806_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPN_2_20210311T234347_20210311T234709_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T012629_20210311T013420_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T030529_20210311T031105_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T043439_20210311T043539_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPR_2_20210311T044439_20210311T045132_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T062303_20210311T062816_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T080051_20210311T080838_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T093905_20210311T094636_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T095548_20210311T095745_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPR_2_20210311T111412_20210311T112441_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T112441_20210311T112603_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T125625_20210311T130340_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T130340_20210311T131826_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T143807_20210311T144225_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T144225_20210311T144341_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T152219_20210311T152717_C001 | Mean Sea Surface (1) | There is an error with the MSS height (solution 1) for one or more records |
| CS_OFFL_SIR_IOPR_2_20210311T161610_20210311T161816_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPR_2_20210311T161817_20210311T162249_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T175529_20210311T180205_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T193726_20210311T194220_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T211117_20210311T211317_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography height for one or more records |
| CS_OFFL_SIR_IOPR_2_20210311T211419_20210311T212419_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOPR_2_20210311T225430_20210311T230312_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) |

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.

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20Hz)

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: 91 **Product** Test Failed Description Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS_OFFL_SIR_IOPM_2_20210310T235755_20210311T000639_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T000925_20210311T003202_C001 Altimeter Range and Backscatter Quality set for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T003711_20210311T003838_C001 **Backscatter Quality** for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS OFFL SIR IOPM 2 20210311T003845 20210311T004253 C001 Backscatter Quality for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T004433_20210311T005800_C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T005948_20210311T010705_C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20210311T010800 20210311T011206 C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been and Backscatter Quality, OCOG CS_OFFL_SIR_IOPM_2_20210311T011933_20210311T011948_C001 Altimeter Range and Backscatter Quality set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T011949_20210311T012043_C001 Altimeter Range and Backscatter Quality set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range and Backscatter Quality Flags have been and Backscatter Quality, OCOG CS_OFFL_SIR_IOPM_2_20210311T013818_20210311T014257_C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T014347_20210311T021038_C001 Altimeter Range and Backscatter Quality set for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T021209_20210311T021737_C001 Backscatter Quality for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T021743_20210311T021750_C001 Backscatter Quality for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG CS_OFFL_SIR_IOPM_2_20210311T022840_20210311T024109_C001 and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T024132_20210311T025845_C001 Altimeter Range and Backscatter Quality set for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T031457_20210311T031516_C001 Backscatter Quality for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T032019_20210311T033200_C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20210311T033404 20210311T034954 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T035137_20210311T035635_C001 Backscatter Quality for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T035714_20210311T035836_C001 Backscatter Quality for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20210311T040544_20210311T041347_C001 Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been CS OFFL SIR IOPM 2 20210311T042236 20210311T043347 C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPM_2_20210311T043414_20210311T043438_C001

Backscatter Quality

for one or more records.

| CS_OFFL_SIR_IOPM_2_20210311T053057_20210311T053548_C001 CS_OFFL_SIR_IOPM_2_20210311T053629_20210311T053738_C001 CS_OFFL_SIR_IOPM_2_20210311T054205_20210311T061617_C001 CS_OFFL_SIR_IOPM_2_20210311T064352_20210311T070448_C001 CS_OFFL_SIR_IOPM_2_20210311T064352_20210311T070448_ | y Flags ve been y Flags ve been y Flags ve been |
|--|--|
| Backscatter Quality Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality Set for one or more records. The Ocean Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Set for one or more records. The Ocean Altimeter Range and Backscatter Quality Set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags has set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality and Backscatter Quality Flags has set for one or more records. | y Flags ve been y Flags ve been y Flags ve been |
| CS_OFFL_SIR_IOPM_2_20210311T054205_20210311T061617_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags has set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags has set for one or more records. Altimeter Range and Backscatter Quality Flags has set for one or more records. | y Flags ve been y Flags ve been |
| CS_OFFL_SIR_IOPM_2_20210311T064352_20210311T070448_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. | y Flags ve been |
| Occord Altimodes Design COLLA CAUL TI CO. Alti of D. COLLA CAUL TI CO. | ve been |
| CS_OFFL_SIR_IOPM_2_20210311T070535_20210311T070828_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20210311T070535_20210311T070828_C001 Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T071134_20210311T071505_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | |
| CS_OFFL_SIR_IOPM_2_20210311T071527_20210311T071855_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T072116_20210311T074828_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T082318_20210311T084751_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T084921_20210311T085420_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T090049_20210311T093552_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | |
| CS_OFFL_SIR_IOPM_2_20210311T095203_20210311T095437_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T102108_20210311T102230_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | |
| Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20210311T102430_20210311T102739_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T102920_20210311T103452_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T104002_20210311T111412_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T113806_20210311T114058_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T114715_20210311T120657_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T120840_20210311T121349_C001 OCOG Altimeter Range Quality, OCOG for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T121907_20210311T125341_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | |
| CS_OFFL_SIR_IOPM_2_20210311T131826_20210311T132301_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | |
| CS_OFFL_SIR_IOPM_2_20210311T132342_20210311T134123_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T134427_20210311T134517_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | • |
| CS_OFFL_SIR_IOPM_2_20210311T135057_20210311T135254_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. | een set |
| CS_OFFL_SIR_IOPM_2_20210311T135940_20210311T141355_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. | _ |

| CS_OFFL_SIR_IOPM_2_20210311T141516_20210311T141714_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
|---|--|--|
| CS_OFFL_SIR_IOPM_2_20210311T142155_20210311T142910_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T143509_20210311T143525_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T144907_20210311T150631_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T150810_20210311T152219_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T153002_20210311T153205_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T153306_20210311T153707_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T153845_20210311T155355_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T155624_20210311T160546_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T162357_20210311T162458_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T163346_20210311T164450_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T165057_20210311T165741_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T170028_20210311T170514_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T170805_20210311T171610_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T171801_20210311T173340_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T181019_20210311T184414_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T184924_20210311T185454_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T185721_20210311T192240_C001 | _ | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T195415_20210311T202309_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T202608_20210311T202711_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T202856_20210311T203343_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T203618_20210311T210520_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T211317_20210311T211419_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T212823_20210311T220232_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T221502_20210311T222125_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T225225_20210311T225430_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |

| CS_OFFL_SIR_IOPM_2_20210311T230745_20210311T234200_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
|--|--|--|
| CS_OFFL_SIR_IOPM_2_20210311T234709_20210311T235223_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPM_2_20210311T235402_20210312T001402_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. |
| US OFFE SIR IOPN / /0/1031110/5854 /0/103111030016 C.001 | 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_IOPN_2_20210311T044228_20210311T044439_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_IOPN_2_20210311T063756_20210311T063916_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_IOPN_2_20210311T112907_20210311T113027_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_IOPN_2_20210311T153205_20210311T153306_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_IOPN_2_20210311T160546_20210311T160821_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_IOPN_2_20210311T193218_20210311T193309_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_IOPN_2_20210311T225121_20210311T225225_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T014257_20210311T014347_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T072038_20210311T072116_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T080051_20210311T080838_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T150631_20210311T150809_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR IOPR / /0/103111180800 /0/103111181018 C.001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |

L2 Quality Flags (20Hz 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.

99

Number of products with errors:

| Product | Test Failed | Description |
|---|--|--|
| CS_OFFL_SIR_IOPN_2_20210311T003250_20210311T003711_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T004254_20210311T004415_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T010705_20210311T010800_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T012044_20210311T012135_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T012220_20210311T012629_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T021048_20210311T021209_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T030155_20210311T030232_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |

| CS_OFFL_SIR_IOPN_2_20210311T030432_20210311T030529_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
|---|--|--|
| CS_OFFL_SIR_IOPN_2_20210311T035836_20210311T040100_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T041921_20210311T042011_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T042011_20210311T042236_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T043851_20210311T044144_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T044228_20210311T044439_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T053738_20210311T054205_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T061749_20210311T061811_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T062816_20210311T062850_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T063756_20210311T063916_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T064014_20210311T064323_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T070900_20210311T071134_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T071855_20210311T072038_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T085755_20210311T085933_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T093552_20210311T093714_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T093758_20210311T093905_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T100210_20210311T100315_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T100812_20210311T101146_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T102802_20210311T102920_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T103453_20210311T103810_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T112603_20210311T112655_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T112907_20210311T113027_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T114519_20210311T114715_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T121349_20210311T121702_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T144341_20210311T144842_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T160546_20210311T160821_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| | | |

| CS_OFFL_SIR_IOPN_2_20210311T162459_20210311T162612_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
|---|---|--|
| CS_OFFL_SIR_IOPN_2_20210311T164450_20210311T164457_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T164510_20210311T165056_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T165741_20210311T170028_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T170550_20210311T170805_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T171610_20210311T171758_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T174314_20210311T174652_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T180205_20210311T180759_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T184459_20210311T184646_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T192511_20210311T192640_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T193535_20210311T193559_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T193658_20210311T193725_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T194220_20210311T194623_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T202425_20210311T202607_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T203343_20210311T203355_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T212420_20210311T212823_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T223257_20210311T223409_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T224550_20210311T224640_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T230312_20210311T230510_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T234347_20210311T234709_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPN_2_20210311T235223_20210311T235347_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T012629_20210311T013420_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T013514_20210311T013703_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T030529_20210311T031105_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T033200_20210311T033404_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T040100_20210311T040417_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. |

| U.S. OFFI. SIR IOPR / /0/103111043439 /0/103111043539 U.001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
|--|---|--|
| CS_OFFL_SIR_IOPR_2_20210311T044439_20210311T045132_C001 | ilimeter Range and Backscatter Chality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR IOPR / /U/103111050514 /U/1031110513/9 C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T062303_20210311T062816_C001 | ilimeter Range and Backscatter Chality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR IOPR / /U/10311106/850 /U/103111063018 C.001 | | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T080051_20210311T080838_C001 | LITIMETER Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T080844_20210311T081135_C001 an | litimeter Rande and Backscatter Ciliality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T093905_20210311T094636_C001 | Ind Backscatter Quality PLRM, OCOG Illimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T094700_20210311T095203_C001 an | Jilmeter Rande and Backscatter CJUAIIIV I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS OFFE SIR TOPR 2 202103111095852 202103111100031 C001 | | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T111412_20210311T112441_C001 Alt | PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T113044_20210311T113336_C001 | itimeter Range and Backscatter Citality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR IOPR / /U/10311111355/ /U/103111113806 U001 | | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T125625_20210311T130340_C001 | LITIMETER Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T130340_20210311T131826_C001 | Jilmeter Range and Backscatter Quality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T134123_20210311T134427_C001 an | Jilmeter Range and Backscatter Chality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR IOPR / /U/103111141399 /U/1031111414/0 U/001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T142911_20210311T143109_C001 | Itimeter 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. |
| US OFFE SIR IOPR / /U/10311114311/ /U/103111143300 U001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T143625_20210311T143750_C001 Alt | Litimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T143807_20210311T144225_C001 | litimeter Range and Backscatter Quality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T144225_20210311T144341_C001 an | Jilmeter Range and Backscatter Ciliality I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| US OFFE SIR TOPR / /0/103111150631 /0/103111150809 C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T152219_20210311T152717_C001 Alt PL | PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T161817_20210311T162249_C001 | Jilmeter Rande and Backscatter CJUALITY I | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T162612_20210311T163046_C001 | nd Backscatter Quality PLRM, OCOG | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |

| CS_OFFL_SIR_IOPR_2_20210311T173341_20210311T174057_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
|---|--|--|
| CS_OFFL_SIR_IOPR_2_20210311T175529_20210311T180205_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T184415_20210311T184458_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T193309_20210311T193534_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T193559_20210311T193657_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T193726_20210311T194220_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T211117_20210311T211317_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T211419_20210311T212419_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T220233_20210311T220436_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T224435_20210311T224457_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T224800_20210311T225112_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T225430_20210311T230312_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T230510_20210311T230632_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records. |
| CS_OFFL_SIR_IOPR_2_20210311T234200_20210311T234347_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 & 1Hz PLRM)

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

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

Number of products with errors: 192

5.8 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20Hz)

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors: 60

L2 Retracking Flags (20Hz, PLRM)

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

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

Number of products with errors: 143

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

6.1 P2P 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

6.2 P2P Product Header Analysis

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

Number of products with errors:

6.3 P2P Auxiliary Data File Usage Check

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

0

6.4 P2P Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors: 29

| Product | Test Failed | Description |
|---|--|---|
| CS_OFFL_SIR_IOP_220210310T234838_20210311T003817_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T003817_20210311T012753_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOP_220210311T012753_20210311T021732_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T021732_20210311T030707_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T030707_20210311T035646_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T035646_20210311T044622_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOP_220210311T044622_20210311T053601_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T053601_20210311T062537_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T062537_20210311T071516_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T071516_20210311T080451_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T080451_20210311T085431_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T085431_20210311T094406_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T094406_20210311T103345_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T103345_20210311T112321_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T112321_20210311T121300_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T121300_20210311T130235_C001 | Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES) Non-Equilibrium Long Period | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records |
| CS_OFFL_SIR_IOP_220210311T130235_20210311T135215_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T135215_20210311T144150_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T144150_20210311T153129_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T153129_20210311T162104_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOP_220210311T162104_20210311T171044_C001 | Iviean Sea Surrace (1), Iviean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period | There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records |
| CS_OFFL_SIR_IOP_220210311T171044_20210311T180019_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T180019_20210311T184959_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_IOP_220210311T184959_20210311T193934_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T193934_20210311T202913_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T202913_20210311T211849_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| | | |

| CS_OFFL_SIR_IOP_220210311T211849_20210311T220828_0 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
|--|---|--|
| CS_OFFL_SIR_IOP_220210311T220828_20210311T225803_0 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |
| CS_OFFL_SIR_IOP_220210311T225803_20210311T234743_0 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) |

6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

6.6 P2P Measurement Quality Flag Check

P2P Quality Flags (20Hz)

CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

Number of products with errors: 30

P2P Quality Flags (20Hz PLRM)

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

Number of products with errors: 29

P2P Quality Flags (1 Hz & 1Hz PLRM)

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

Number of products with errors: 30

6.8 P2P Ocean Retracking Quality Check

P2P Retracking Flags (20Hz)

Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

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

Number of products with errors: 27

P2P Retracking Flags PLRM

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

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

Number of products with errors: 30

7. IOP QCC Report Analysis

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

| Product type | No. Products | No. QCC Reports | No. Valid | No. Warnings | No. Errors |
|--------------|--------------|-----------------|-----------|--------------|------------|
| SIR_IOPM1B | 183 | 183 | 1 | 182 | 0 |
| SIR_IOPR1B | 115 | 107 | 2 | 105 | 0 |
| SIR_IOPN1B | 107 | 115 | 0 | 115 | 0 |
| SIR_IOPM_2 | 183 | 183 | 130 | 53 | 0 |
| SIR_IOPR_2 | 115 | 107 | 46 | 61 | 0 |
| SIR_IOPN_2 | 107 | 115 | 36 | 74 | 5 |
| SIR IOP P2P | 29 | 29 | 0 | 24 | 5 |

7.1 QCC Errors

Number of QCC reports with errors:

16

Total number of occurrences of each error

| Product Type | RLOBOPNCDF | RL | RLOBOPNCDF | RL | - | - | - | - | - | - | - |
|---------------------|------------|----|------------|----|---|---|---|---|---|---|---|
| SIR_IOPR_2 | 5 | 5 | 5 | 5 | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Product Type | RLOBOPNCDF | RL | RLOBOPNCDF | RL | - | - | - | - | - | - | - |

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

7.2 QCC Warnings

Number of QCC reports with warnings

2153

| Total number of occurrences of each warning | Total number | of occurrences | of each | warning |
|---|--------------|----------------|---------|---------|
|---|--------------|----------------|---------|---------|

| | | | | iaiiiboi oi oocaiioiiooc | U | | |
|-------------|------------|----------|--------------|--------------------------|----------|-----------------|--------------------|
| Product Typ | e BCSHNCDF | IOHHMOOR | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNCD |
| SIR_IOPM1E | 3 182 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPM_2 | 2 0 | 0 | 36 | 43 | 1 | 44 | 0 |
| SIR_IOPN1E | 3 104 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPN_2 | 2 0 | 0 | 9 | 32 | 5 | 20 | 24 |
| SIR_IOPR1E | 3 110 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPR_2 | 2 0 | 5 | 31 | 47 | 0 | 32 | 30 |

| Product Type | RBSZOPOEPNCDF | RNELPOTONCDF | RPEPOPFDLRMNCDF | RPEPOPFDPLRMSARNCD | RPEPOPFDPLRMSINNCD | RPEPOPFDSARNCDF | RPEPOPFDSINNCDF |
|--------------|---------------|--------------|-----------------|--------------------|--------------------|-----------------|-----------------|
| SIR_IOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| SIR_IOPM_2 | 39 | 1() | 33 | 0 | 0 | 0 | 0 |
|------------|----|-----|----|----|----|----|----|
| SIR_IOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPN_2 | 14 | 0 | 0 | 0 | 16 | 0 | 30 |
| SIR_IOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPR_2 | 17 | 1 | 0 | 46 | 0 | 52 | 0 |

| Product Type | RPEPOPLRMNCDF | RPEPOPSARNCDF | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF |
|--------------|---------------|---------------|---------------|------------|--------------|------------------|------------|
| SIR_IOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPM_2 | 29 | 0 | 0 | 2 | 25 | 0 | 2 |
| SIR_IOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_IOPN_2 | 0 | 0 | 28 | 15 | 39 | 54 | 29 |
| SIR_IOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR IOPR 2 | 0 | 45 | 0 | 9 | 62 | 33 | 14 |

| Product Type | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SOOHHIFHD | SCSTODHRNCDF | SCSTODNCDF | - |
|--------------|---------------|-------------------|-------------|-----------|--------------|------------|---|
| SIR_IOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | |
| SIR_IOPM_2 | 32 | 0 | 0 | 0 | 0 | 0 | |
| SIR_IOPN1B | 0 | 0 | 0 | 0 | 48 | 2 | |
| SIR_IOPN_2 | 28 | 27 | 13 | 0 | 0 | 0 | |
| SIR_IOPR1B | 0 | 0 | 0 | 0 | 115 | 10 | |
| SIR_IOPR_2 | 33 | 40 | 3 | 9 | 0 | 0 | |

| _ | | | | | | | | |
|---|--------------|----------|--------------|------------|----------|-----------------|--------------------|---------------|
| | Product Type | IOHHMOOR | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNCD | RBSZOPOEPNCDF |
| | SIR_IOP_2_ | 17 | 29 | 29 | 6 | 29 | 18 | 29 |

| Product Type | RNELPOTONCDF | RPEPOPFDPLRMSINNCDI | RPEPOPFDSINNCDF | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF |
|--------------|--------------|---------------------|-----------------|---------------|------------|--------------|------------------|
| SIR_IOP_2_ | 1 | | 27 | 27 | | 29 | 18 |

| Product Type | RSSHAONCDF | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SPHLPQWNCDF | - | - |
|--------------|------------|---------------|-------------------|-------------|-------------|---|---|
| SIR_IOP_2_ | 26 | 29 | 17 | 113 | 29 | | |

| 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) | | | | |
| MVIOEPFDNCDF | MissingValueIntOceanExcludingPolarFD2NetCDF | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees | | | | |
| MVIOEPNCDF | MissingValueIntOceanExcludingPolarNetCDF | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees | | | | |
| MVIONCDF | MissingValueIntOceanNetCDF | The value should not be a 'missing value' for surface type 0 only | | | | |
| RBSZOPOEPFDNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RBSZOPOEPFDPLRM NCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RBSZOPOEPNCDF | RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF | The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RNELPOTONCDF | RangeNELPOceanTideOceanNetCDF | The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean | | | | |
| RPEPOPFDLRMNCDF | RangePeakinessExcludingPolarOPFD2LRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPFDPLRMSAR NCDF | RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| | RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPFDSARNCDF | RangePeakinessExcludingPolarOPFD2SARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPFDSINNCDF | RangePeakinessExcludingPolarOPFD2SINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPLRMNCDF | RangePeakinessExcludingPolarOPLRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPSARNCDF | RangePeakinessExcludingPolarOPSARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RPEPOPSINNCDF | RangePeakinessExcludingPolarOPSINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RSSBCONCDF | RangeSeaStateBiasCorrectionOceanNetCDF | The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean | | | | |
| RSSHAOFDNCDF | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean | | | | |
| RSSHAOFDPLRMNCD F | RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean | | | | |
| RSSHAONCDF | RangeSeaSurfaceHeightAnomalyOceanNetCDF | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean | | | | |
| RSWHOEPFDNCDF | RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | | | |
| RSWHOEPFDPLRMNC | 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 | | | | |
| 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