

1. Overview

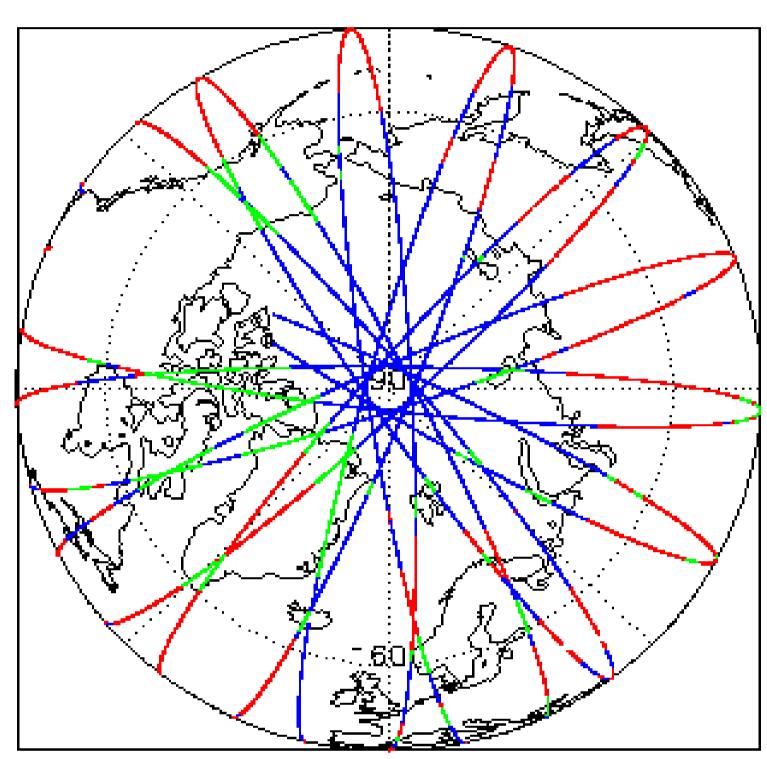
| Report Production: | 22-Feb-2023 |
|--------------------|--|
| Processor Used: | CryoSat Ocean Processor |
| Data Used: | Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data |

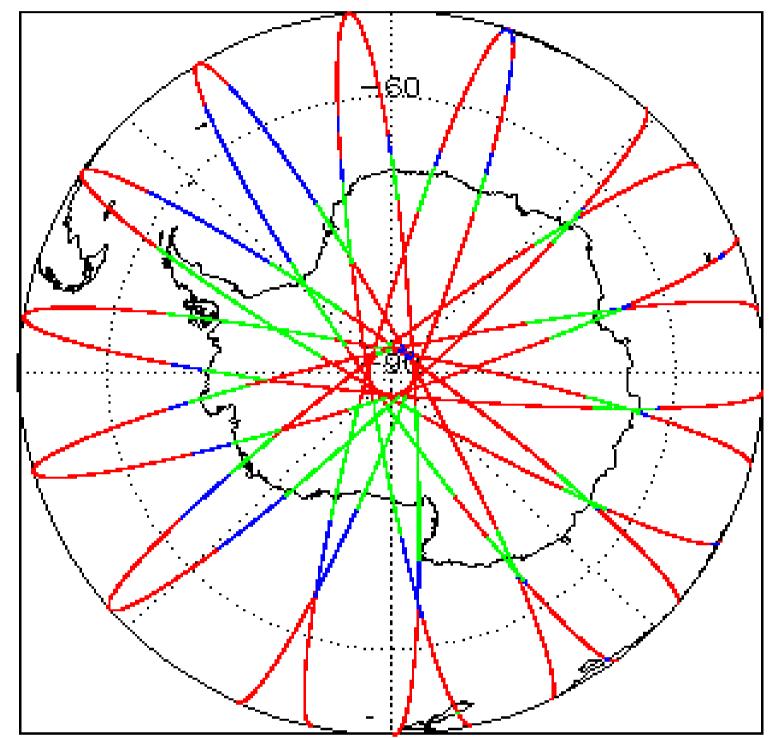
| we would love to near from you! |
|--|
| Please let us know your feedback about these daily |
| quality reports: What do you like/ dislike? What quality |
| information do you need? Send your feedback to |
| cs2_qc_team@telespazio.com |

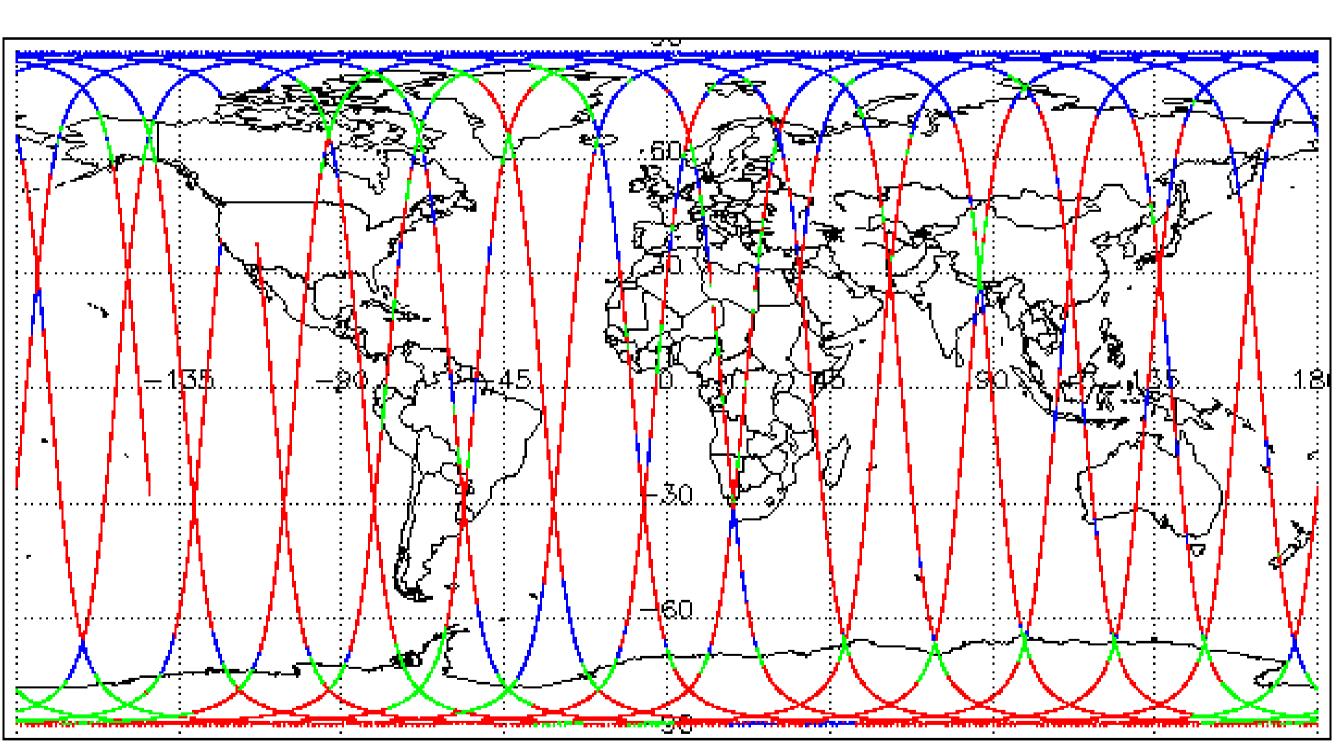
| Check | L1 & L2 | P2P |
|--|----------------------|-------------------------|
| Server check: science-pds.cryosat.esa.int | Nominal | Nominal |
| Server check: calval-pds.cryosat.esa.int | Nominal | Nominal |
| Product Software Check | Nominal | Nominal |
| Product Format Check | Nominal | Nominal |
| 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 7.2 | See Section 7.2 and 7.3 |

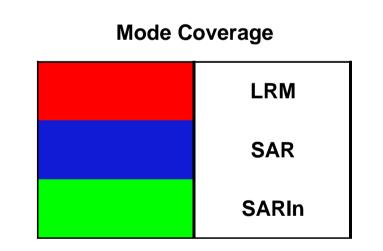
| Mission / Instrument News | | |
|---------------------------|-----------------|--|
| 21-Jan-2023 | None | |
| 22-Jan-2023 | None | |
| 23-Jan-2023 | Nothing planned | |

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

4. GOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis

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

L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B GOPR and GOPN 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.

Number of products with errors: 0

4.5 L1B Measurement Confidence Data Check

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

Attitude Correction Missing: This flag is currently set in error for GOPR 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 some products over land, but this is to be expected.

Number of products with errors:

9

0

| Product | Test Failed | Description |
|---|--------------|--|
| CS_OFFL_SIR_GOPM1B_20230122T031413_20230122T032042_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPM1B_20230122T051011_20230122T051712_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPM1B_20230122T182018_20230122T183115_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPN1B_20230122T102516_20230122T102524_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPN1B_20230122T183619_20230122T183913_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPN1B_20230122T184014_20230122T184227_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPN1B_20230122T193518_20230122T194001_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPR1B_20230122T063405_20230122T063516_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_GOPR1B_20230122T102535_20230122T103059_C001 | Loss of Echo | The tracking echo is missing for one or more records |

5. GOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors:

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.

Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

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

0

0

Currently, there are some common auxiliary correction errors raised in the Level 2 products that are expected, due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues that 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.
- > 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: 57

| Product | Test Failed | Description |
|---|--|--|
| CS_OFFL_SIR_GOPM_2_20230122T235255_20230122T235342_C001 | liviean Dynamic Toboqraphy (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T011615_20230122T011740_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T012301_20230122T012609_C001 | | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T025558_20230122T025815_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

| CS_OFFL_SIR_GOPN_2_20230122T030201_20230122T030533_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
|---|---|---|
| CS_OFFL_SIR_GOPN_2_20230122T043640_20230122T043915_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T053149_20230122T053310_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T061210_20230122T061802_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T070613_20230122T070717_C001 | IIVIEAN DYNAMIC LODOGRADNY (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T071118_20230122T071330_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T075407_20230122T075550_C001 | IIViean Dynamic Lopography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T080428_20230122T080630_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T085032_20230122T085521_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T102241_20230122T102327_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T111316_20230122T111437_C001 | Mean Sea Surface (1) | There is an error with the MSS height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T111441_20230122T111711_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (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_GOPN_2_20230122T125306_20230122T125619_C001 | ` | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T133740_20230122T133907_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T143053_20230122T143503_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T144035_20230122T144201_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T152014_20230122T152414_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T161829_20230122T162012_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T170217_20230122T170312_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T175623_20230122T175840_C001 | Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T184014_20230122T184227_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T192639_20230122T192831_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T193518_20230122T194001_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T201657_20230122T202052_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T210645_20230122T210917_C001 | IMean Dynamic Lobodraphy (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T211636_20230122T211824_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T224529_20230122T224700_C001 | IIVIean Dynamic Lobodraphy (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T002734_20230122T003354_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T003354_20230122T003651_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T020548_20230122T021253_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T021253_20230122T021431_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T034701_20230122T035151_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T035151_20230122T035318_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| | | |

| CS_OFFL_SIR_GOPR_2_20230122T052458_20230122T053035_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the GPD Wet Tropospheric correction, the MSS height (solution 1) and tidal corrections for one or more records |
|---|---|---|
| CS_OFFL_SIR_GOPR_2_20230122T053035_20230122T053149_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T070717_20230122T070809_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T070809_20230122T071118_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T084341_20230122T085032_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T102535_20230122T103059_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T115346_20230122T115441_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T115442_20230122T115541_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T120444_20230122T121239_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T134316_20230122T135221_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T152414_20230122T152740_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T152740_20230122T153133_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T170312_20230122T170854_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T170907_20230122T171033_C001 | Mean Dynamic Topography (1) | There is an error with the Mean Dynamic Topography (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T184227_20230122T184916_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T201350_20230122T201612_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (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_GOPR_2_20230122T202052_20230122T202611_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOPR_2_20230122T215908_20230122T220903_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20 Hz)

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

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

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

0

Number of products with errors: 106

| Product | Test Failed | Description |
|--|--|---|
| CS_OFFL_SIR_GOPM_2_20230121T234959_20230122T002351_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 |
| U.S. OFFI. SIR (40PM/ 2-202301221004122-202301221004501-0001 | 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_GOPM_2_20230122T010750_20230122T011542_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 |
| (S OFFE SIR GOPINES SULSIONS) | 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_GOPM_2_20230122T012844_20230122T015110_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_GOPM_2_20230122T015356_20230122T020322_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_GOPM_2_20230122T021533_20230122T021925_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_GOPM_2_20230122T023518_20230122T024005_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_GOPM_2_20230122T024153_20230122T025336_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_GOPM_2_20230122T025406_20230122T025511_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_GOPM_2_20230122T025815_20230122T030201_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been s for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T030821_20230122T031404_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T031413_20230122T032042_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T032213_20230122T034004_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T034422_20230122T034529_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been some or more records |
| CS_OFFL_SIR_GOPM_2_20230122T035843_20230122T040516_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T040534_20230122T042941_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T044405_20230122T044540_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T044741_20230122T045421_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T050139_20230122T050404_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T051011_20230122T051712_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T053310_20230122T053704_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T053839_20230122T054432_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T054540_20230122T055415_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T060034_20230122T061210_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T061802_20230122T062024_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T062056_20230122T062518_C001 | OCOG Altimeter Range Quality, OCOG Backscatter Quality | The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T062700_20230122T063405_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fland the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T063516_20230122T064200_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T064339_20230122T065432_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T072033_20230122T072346_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flagand the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| CS_OFFL_SIR_GOPM_2_20230122T072516_20230122T072743_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records |
| | | |

| CO. P. L. BE. COMM. 2. RESIDENCE 2007 21 FORD CO. CO. P. | CS_OFFL_SIR_GOPM_2_20230122T072906_20230122T073341_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 |
|--|---|--|---|
| Control Cont | CS_OFFL_SIR_GOPM_2_20230122T073343_20230122T073348_C001 | | |
| Comparison Compariso | CS_OFFL_SIR_GOPM_2_20230122T073656_20230122T075304_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| CS OFFL SIR COPM 2 202010271303-3 2000 20700000 COP And to Program Gradual Decision Company CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP And to Program Gradual Decision Company CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP CS OFFL SIR COPM 2 20201027130300 7000 207000000 COP CS OFFL SIR COPM 2 2020102713030 7000 207000000 COP CS OFFL SIR COPM 2 2020102713030 7000 207000000 COP CS OFFL SIR COPM 2 2020102713030 7000 207000000 COP CS OFFL SIR COPM 2 2020102713030 7000 COP CS OFF | CS_OFFL_SIR_GOPM_2_20230122T075550_20230122T080428_C001 | | |
| See GPFL SIR GOPPL 2 2020/02/102876 2020/12/10020 (CDF) GC GPFL SIR GOPPL 2 2020/02/10287 2020/12/10020 (CDF) GC GPFL SIR GOPPL 2 2020/02/10287 2020/12/110020 (CDF) GC GPFL SIR GOPPL 2 2020/02/10287 2020/12/110200 (CDF) GC GPFL SIR GOPPL 2 2020/02/10287 2020/12/110020 (CDF) GC GPFL SIR GOPPL 2 2020/02/10287 2020/12/110200 (CDF) GC GPFL SIR GOPPL 2 2020/02/10280 (ADD) GC GPFL SIR GOPPL 2 2020/02/10280 | CS_OFFL_SIR_GOPM_2_20230122T080643_20230122T082925_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Description of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range and Bedescription Quelly Flags have been sell consistent of the Coop Aircream Range Air Bedescription Quelly Coop Air Range Range Air Bedescription Quelly Coop Air Range Range Air Bedescription Quelly Flags have been sell consistent Quelly Flags have been sell consisten | CS_OFFL_SIR_GOPM_2_20230122T090712_20230122T093229_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Secondary Clusters | CS_OFFL_SIR_GOPM_2_20230122T093506_20230122T093655_C001 | | , , , |
| and Databassians Outly. COOP Almenter Range and Bassians Outly. Coop Almenter Range Outly. Coop Almenter Range, SSNA, SYNH and Salakassians Outly. Flegs have been set to row or or more records. CS_OFFL_SIR_COPPL_2.0230122**112012_20201001 CS_OFFL_SIR_COPPL_2.0230122**112012_20201001 CS_OFFL_SIR_COPPL_2.0230122**123012_2020127*112020. COO1 Occasi A Francis Range, SSNA, SYNH and Databassians Outly. COO Almenter Range, SSNA, SYNH and Databassians Outly. COO Almenter Range, SSNA, SYNH and Databassians Outly. COO Almenter Range, SSNA, SYNH and Backscassins Outly. Coop Almenter Range, SSNA, SYNH and Backscassins Outly. Coop Almenter Range and Databassians Outly. Coop Almenter Range, SSNA, SYNH and Backscassins Outly. Coop Almenter Range and Databassians Outly CS_OFFL_SIR_COPPL_2.0230122**10258*1.2020122**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**10258*1.2020122**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**10258*1.2020122**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**10258*1.2020122**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**10258*1.2020122**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**103019.202012**113019.COO1 CS_OFFL_SIR_COPPL_2.0230122**103019.202012**113019.COO1 CS_OFFL_SIR_COPPL_2.023012**103019.202012**113019.COO1 CS_OFFL_SIR_COPPL_2.023012**103019.202012**113019.COO1 CS_OFFL_SIR_COPPL_2.023012**103019.202012**113019.COO1 CS_OFFL_SIR_COPPL_2.023012**103019.202012 | CS_OFFL_SIR_GOPM_2_20230122T093753_20230122T094227_C001 | • | , , , |
| and discoccation Quality CDGC Alternater Renings Quality CDGC Alternater Renings Quality CDGC CS_OFFL_SIR_GOTPV_2_202201227191051_20235122719 2072 CS_OFFL_SIR_GOTPV_2_202201227191051_202351227119232_CDG1 CS_OFFL_SIR_GOTPV_2_202201227191051_202351227119232_CDG1 CS_OFFL_SIR_GOTPV_2_202201227191051_202351227119232_CDG1 CS_OFFL_SIR_GOTPV_2_202201227192032_202351227119232_CDG1 CS_OFFL_SIR_GOTPV_2_202201227192032_20235122712036_CDG1 CS_OFFL_SIR_GOTPV_2_20220122712036_20235122712036_CDG1 CS_OFFL_SIR_GOTPV_2_20220122713036_20235122713036_CDG1 CS_OFFL_SIR_GOTPV_2_ | CS_OFFL_SIR_GOPM_2_20230122T094510_20230122T095023_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Caulty | CS_OFFL_SIR_GOPM_2_20230122T095053_20230122T101048_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, ODOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records The OCOG All Marieter Range and Backscatter Quality Riggs have been exit or one or more records CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T120398_0001 All Marieter Range and Backscatter Quality Riggs have been set for one or more records CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T120398_0001 CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T120010 CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T120010 CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T130019_0001 Backscatter Quality, OCOG Backscatter Quality Riggs have been set for one or more records CS_OFFL_SIR_GOPM_2_20220122T12009_20230122T130019_0001 CS_OFFL_SIR_GOPM_2_20220122T130034_20230122T130019_0001 CS_OFFL_SIR_GOPM_2_20220122T130034_20230122T130010 CS_OFFL_SIR_GOPM_2_20220122T130034_20230122T130040 CS_OFFL_SIR_GOPM_2_20220122T130034_20230122T130040 CS_OFFL_SIR_GOPM_2_20220122T130034_20230122T130040 CS_OFFL_SIR_GOPM_2_20220122T130040 CS_OFFL_SIR_GOPM_2_20220122T130040 CS_OFFL_SIR_GOPM_2_20220122T130040 | CS_OFFL_SIR_GOPM_2_20230122T101051_20230122T101247_C001 | | |
| Secles actater Quality CS_OFFL_SIR_GOPM_2_20230122T112439_2023012ZT114640_C001 CS_OFFL_SIR_GOPM_2_2023012ZT112439_2023012ZT112055_C001 CS_OFFL_SIR_GOPM_2_2023012ZT112030_2023012ZT112055_C001 CS_OFFL_SIR_GOPM_2_2023012ZT112030_2023012ZT12055_C001 CS_OFFL_SIR_GOPM_2_2023012ZT12553_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT12553_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130334_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130354_2023012ZT130135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130354_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130354_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT13056_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130554_2023012ZT130554_2001 CCCOM_Altimoter Range Clustility CoCOM_Altimoter Range and Backscatter Quality Flags and the OCOM_Altimoter Range and Backscatter Quality Flags are been set for one or more records CCCOM_Altimoter Range and Backscatter Quality Flags are been set for one or more records CCCOM_Altimoter Range and Backscatter Quality Flags are been set for one or more records CCCOM_Altimoter Range and Backscatter Quality Flags are been | CS_OFFL_SIR_GOPM_2_20230122T104347_20230122T111032_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and background Country Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and flags of the OCOG Altimeter Range and Backscatter Quality Flags and flags of the OCOG Altimeter Range and Backscatter Quality Flags and flags of the OCOG Altimeter Range and Backscatter Quality Flags and Flags of the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS OFFL SIR GOPM 2 20230122T130334 20230122T130616 CO01 CS OFFL SIR GOPM 2 20230122T130334 20230122T130516 CO01 CS OFFL SIR GOPM 2 20230122T130334 20230122T130516 CO01 CS OFFL SIR GOPM 2 20230122T130515 20230122T130516 CO01 CS OFFL SIR GOPM 2 20230122T130515 20230122T130515 (CO07) CO07 CO07 CO07 CO07 CO07 CO07 CO07 CO07 | CS_OFFL_SIR_GOPM_2_20230122T111711_20230122T112303_C001 | | 1. |
| and Backscatter Quality, OCOS Altimeter Range and Backscatter Quality Flags have been at the OCOS Altimeter Range and Backscatter Quality Flags have been at the OCOS Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at the OCOS Altimeter Range and Backscatter Quality Flags have been at the OCOS Altimeter Range and Backscatter Quality Flags have been set for one or more records CS OFFL SIR GOPM 2 20230122T1256819 20230122T130136 CD01 CS OFFL SIR GOPM 2 20230122T130034 20230122T130016 CD01 CS OFFL SIR GOPM 2 20230122T130034 20230122T130016 CD01 CS OFFL SIR GOPM 2 20230122T130015 20230122T130016 CD01 CS OFFL SIR GOPM 2 20230122T130015 20230122T130016 CD01 CS OFFL SIR GOPM 2 20230122T130015 20230122T130016 CD01 CS OFFL SIR GOPM 2 20230122T130017 20230122T130017 CD01 CS OFFL SIR GOPM 2 20230122T130017 20230122T13001 CD01 CS OFFL SIR GOPM 2 20230122T130017 20230122T13001 CD01 CS OFFL SIR GOPM 2 20230122T | CS_OFFL_SIR_GOPM_2_20230122T112439_20230122T114640_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, CCOG Altimeter Range and Backscatter Quality, CCOG Altimeter Range and Backscatter Quality set for one or more records CS_OFFL_SIR_GOPM_2_20230122T126819_20230122T130136_CO01 CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130136_CO01 CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130136_CO01 CS_OFFL_SIR_GOPM_2_20230122T130815_20230122T13023_CO01 CS_OFFL_SIR_GOPM_2_20230122T130815_20230122T130815_CO03012 | CS_OFFL_SIR_GOPM_2_20230122T120203_20230122T120258_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130166_C001 CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130616_C001 CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130036_C001 CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130036_C001 CS_OFFL_SIR_GOPM_2_20230122T130035_C0030122T13003_C001 CS_OFFL_SIR_GOPM_2_20230122T130035_C0030122T13003_C001 CS_OFFL_SIR_GOPM_2_20230122T13003_C0030122T13003_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T133541_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T133007_20230122T1340424_C001 CS_OFFL_SIR_GOPM_2_20230122T13007_20230122T13001 | CS_OFFL_SIR_GOPM_2_20230122T121538_20230122T125021_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_GOPM_2_2023012ZT130815_2023012ZT131023_C001 CS_OFFL_SIR_GOPM_2_2023012ZT130815_2023012ZT131023_C001 CS_OFFL_SIR_GOPM_2_2023012ZT133531_2023012ZT133541_C001 CS_OFFL_SIR_GOPM_2_2023012ZT133531_2023012ZT133541_C001 CS_OFFL_SIR_GOPM_2_2023012ZT133507_2023012ZT134135_C001 CS_OFFL_SIR_GOPM_2_2023012ZT133546_2023012ZT140124_C001 CS_OFFL_SIR_GOPM_2_2023012ZT135546_2023012ZT140124_C001 CS_OFFL_SIR_GOPM_2_2023012ZT135546_2023012ZT140124_C001 CS_OFFL_SIR_GOPM_2_2023012ZT135546_2023012ZT140124_C001 CS_OFFL_SIR_GOPM_2_2023012ZT140710_2023012ZT142916_C001 CS_OFFL_SIR_GOPM_2_2023012ZT140710_2023012ZT14052_C001 CS_OFFL_SIR_GOPM_2_2023012ZT140710_2023012ZT14052_C001 CS_OFFL_SIR_GOPM_2_2023012ZT140503_2023012ZT14052_C001 CS_OFFL_SIR_GOPM_2_2023012ZT140503_2023012ZT14050_C001 CCOGG_Altimeter Range Quality, OCOGG_Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_GOPM_2_2023012ZT140503_2023012ZT14050_C001 CCOGG_Altimeter Range Quality, OCOGG_Altimeter Range and Backscatter Quality Flags have been set for one or more records CCS_OFFL_SIR_GOPM_2_2023012ZT140503_2023012ZT14050_C001 CCOGG_Altimeter Range Quality, OCOGG_Altimeter Range and Backscatter Quality Flags have been set for one or more records CCS_OFFL_SIR_GOPM_2_2023012ZT140503_2023012ZT1405001 CCOGG_Altimeter Range Quality, OCOGG_Altimeter Range and Backscatter Quality Flags have been set for | CS_OFFL_SIR_GOPM_2_20230122T125619_20230122T130136_C001 | | |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Set for one or more records CS_OFFL_SIR_GOPM_2_20230122T133531_20230122T133541_CO01 CS_OFFL_SIR_GOPM_2_20230122T133531_20230122T133541_CO01 CS_OFFL_SIR_GOPM_2_20230122T133907_20230122T134135_CO01 CS_OFFL_SIR_GOPM_2_20230122T133907_20230122T1440424_CO01 CS_OFFL_SIR_GOPM_2_20230122T135546_20230122T140424_CO01 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T140424_CO01 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T | CS_OFFL_SIR_GOPM_2_20230122T130334_20230122T130616_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality Gr one or more records CS_OFFL_SIR_GOPM_2_20230122T133907_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T133907_20230122T134135_C001 CS_OFFL_SIR_GOPM_2_20230122T135546_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T135546_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122 | CS_OFFL_SIR_GOPM_2_20230122T130815_20230122T131023_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_GOPM_2_20230122T135546_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T140424_C001 CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T1407 | CS_OFFL_SIR_GOPM_2_20230122T133531_20230122T133541_C001 | • | , , |
| and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Set for one or more records CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T142916_C001 CS_OFFL_SIR_GOPM_2_20230122T143503_20230122T143622_C001 CS_OFFL_SIR_GOPM_2_20230122T143503_20230122T143622_C001 CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T1445541_C001 And Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T144541_C001 And Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T145541_C001 CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T145541_C001 CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T145541_C001 | CS_OFFL_SIR_GOPM_2_20230122T133907_20230122T134135_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T142916_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range Quality, OCOG Backscatter Quality CS_OFFL_SIR_GOPM_2_20230122T143503_20230122T143622_C001 CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records | CS_OFFL_SIR_GOPM_2_20230122T135546_20230122T140424_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| CS_OFFL_SIR_GOPM_2_20230122T143503_20230122T143622_C001 Backscatter Quality OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality Flags and Backscatter Quality Flags and Backscatter Quality Flags have been | CS_OFFL_SIR_GOPM_2_20230122T140710_20230122T142916_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |
| Backscatter Quality Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been | CS_OFFL_SIR_GOPM_2_20230122T143503_20230122T143622_C001 | • | |
| CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T145541_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been | CS_OFFL_SIR_GOPM_2_20230122T143629_20230122T144035_C001 | | |
| | CS_OFFL_SIR_GOPM_2_20230122T144242_20230122T145541_C001 | and Backscatter Quality, OCOG | and the OCOG Altimeter Range and Backscatter Quality Flags have been |

| CS_OFFL_SIR_GOPM_2_20230122T145729_20230122T150347_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_GOPM_2_20230122T153529_20230122T160821_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_GOPM_2_20230122T161006_20230122T161521_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_GOPM_2_20230122T162621_20230122T165644_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_GOPM_2_20230122T165823_20230122T170136_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_GOPM_2_20230122T171629_20230122T172942_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_GOPM_2_20230122T173147_20230122T174731_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_GOPM_2_20230122T174917_20230122T175419_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_GOPM_2_20230122T175426_20230122T175433_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_GOPM_2_20230122T175458_20230122T175623_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_GOPM_2_20230122T180344_20230122T181358_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_GOPM_2_20230122T182018_20230122T183115_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_GOPM_2_20230122T184916_20230122T185224_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_GOPM_2_20230122T185821_20230122T190404_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_GOPM_2_20230122T190725_20230122T191008_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_GOPM_2_20230122T191147_20230122T192619_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_GOPM_2_20230122T192831_20230122T193331_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_GOPM_2_20230122T193413_20230122T193518_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_GOPM_2_20230122T194001_20230122T201350_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_GOPM_2_20230122T204319_20230122T210621_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_GOPM_2_20230122T211311_20230122T211635_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_GOPM_2_20230122T211903_20230122T214811_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_GOPM_2_20230122T221931_20230122T224521_C001 | Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |

L2 Quality Flags (20 Hz PLRM)

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

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

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_GOPN_2_20230122T004502_20230122T004526_C001 | OCOG Altimeter Range Quality PLRM, | The OCOG Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T010144_20230122T010250_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_GOPN_2_20230122T012301_20230122T012609_C001 | TAITIMETER RANGE AND BACKSCATTER CHAITY | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T021431_20230122T021503_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_GOPN_2_20230122T023151_20230122T023518_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_GOPN_2_20230122T025558_20230122T025815_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_GOPN_2_20230122T043640_20230122T043915_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_GOPN_2_20230122T044108_20230122T044405_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_GOPN_2_20230122T055928_20230122T060034_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_GOPN_2_20230122T071118_20230122T071330_C001 | TAIIIMETEL Range and Backscatter Cuality | The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T071911_20230122T072033_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_GOPN_2_20230122T075407_20230122T075550_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_GOPN_2_20230122T085032_20230122T085521_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_GOPN_2_20230122T093343_20230122T093506_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_GOPN_2_20230122T101504_20230122T101610_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_GOPN_2_20230122T111441_20230122T111711_C001 | | The OCOG Range and Backscatter Quality Flags have been set for one or more records |
| CS_OFFL_SIR_GOPN_2_20230122T112304_20230122T112431_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_GOPN_2_20230122T120145_20230122T120203_C001 | TAITIMETER 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_GOPN_2_20230122T132027_20230122T132101_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_GOPN_2_20230122T132356_20230122T132541_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_GOPN_2_20230122T133403_20230122T133531_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_GOPN_2_20230122T133740_20230122T133907_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_GOPN_2_20230122T135311_20230122T135328_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_GOPN_2_20230122T150436_20230122T150521_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_GOPN_2_20230122T152014_20230122T152414_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_GOPN_2_20230122T161829_20230122T162012_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_GOPN_2_20230122T165644_20230122T165823_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_GOPN_2_20230122T170217_20230122T170312_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_GOPN_2_20230122T170854_20230122T170907_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_GOPN_2_20230122T183619_20230122T183913_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_GOPN_2_20230122T184014_20230122T184227_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_GOPN_2_20230122T192639_20230122T192831_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_GOPN_2_20230122T193518_20230122T194001_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_GOPN_2_20230122T201657_20230122T202052_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_GOPN_2_20230122T220905_20230122T220919_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_GOPN_2_20230122T225204_20230122T225211_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_GOPN_2_20230122T233314_20230122T233459_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_GOPN_2_20230122T234422_20230122T234447_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_GOPR_2_20230122T002523_20230122T002550_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_GOPR_2_20230122T002734_20230122T003354_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_GOPR_2_20230122T003354_20230122T003651_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_GOPR_2_20230122T003847_20230122T003928_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_GOPR_2_20230122T004050_20230122T004122_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_GOPR_2_20230122T020322_20230122T020543_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_GOPR_2_20230122T020548_20230122T021253_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_GOPR_2_20230122T021503_20230122T021533_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_GOPR_2_20230122T021948_20230122T022248_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_GOPR_2_20230122T022305_20230122T022315_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_GOPR_2_20230122T030533_20230122T030821_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_GOPR_2_20230122T034004_20230122T034036_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_GOPR_2_20230122T034109_20230122T034110_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_GOPR_2_20230122T034529_20230122T034659_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_GOPR_2_20230122T035151_20230122T035318_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_GOPR_2_20230122T042941_20230122T043640_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_GOPR_2_20230122T052006_20230122T052021_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_GOPR_2_20230122T055415_20230122T055629_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_GOPR_2_20230122T064200_20230122T064339_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_GOPR_2_20230122T065943_20230122T065951_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_GOPR_2_20230122T070717_20230122T070809_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_GOPR_2_20230122T070809_20230122T071118_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_GOPR_2_20230122T071716_20230122T071818_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_GOPR_2_20230122T084341_20230122T085032_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_GOPR_2_20230122T093229_20230122T093343_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_GOPR_2_20230122T094446_20230122T094510_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_GOPR_2_20230122T102121_20230122T102241_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_GOPR_2_20230122T102535_20230122T103059_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_GOPR_2_20230122T115204_20230122T115239_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_GOPR_2_20230122T115859_20230122T120103_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_GOPR_2_20230122T120444_20230122T121239_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_GOPR_2_20230122T131237_20230122T131245_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_GOPR_2_20230122T133602_20230122T133740_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_GOPR_2_20230122T134316_20230122T135221_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_GOPR_2_20230122T135328_20230122T135546_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_GOPR_2_20230122T152740_20230122T153133_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_GOPR_2_20230122T153320_20230122T153529_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_GOPR_2_20230122T170312_20230122T170854_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_GOPR_2_20230122T171448_20230122T171514_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_GOPR_2_20230122T171521_20230122T171535_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_GOPR_2_20230122T172942_20230122T173147_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_GOPR_2_20230122T174731_20230122T174735_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_GOPR_2_20230122T175840_20230122T180344_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_GOPR_2_20230122T181805_20230122T182018_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_GOPR_2_20230122T183115_20230122T183330_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_GOPR_2_20230122T183509_20230122T183619_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_GOPR_2_20230122T183918_20230122T184014_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_GOPR_2_20230122T184227_20230122T184916_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_GOPR_2_20230122T193331_20230122T193339_C001 | OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality | The OCOG Range and Backscatter Quality Flags have been set for one or more records |

L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

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

Number of products with errors: 201

5.8 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20 Hz)

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

Ocean Retracking Quality Flag: This flag is currently set for products 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: 64

L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors: 150

6. GOP 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.

Number of products with errors: 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 that are expected, due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues that 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.
- > 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: 30

| Product | Test Failed | Description |
|---|---|--|
| CS_OFFL_SIR_GOP_220230121T234246_20230122T003225_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T003225_20230122T012201_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

| CS_OFFL_SIR_GOP_220230122T012201_20230122T021139_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
|---|---|---|
| CS_OFFL_SIR_GOP_220230122T021139_20230122T030116_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T030116_20230122T035054_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T035054_20230122T044030_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T044030_20230122T053009_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T053009_20230122T061945_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOP_220230122T061945_20230122T070923_C001 | | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T070923_20230122T075859_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T075859_20230122T084838_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T084838_20230122T093814_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T093814_20230122T102753_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T102753_20230122T111729_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records |
| CS_OFFL_SIR_GOP_220230122T111729_20230122T120707_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T120707_20230122T125644_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T125644_20230122T134622_C001 | | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOP_220230122T134622_20230122T143558_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T143558_20230122T152537_C001 | | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOP_220230122T152537_20230122T161513_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T161513_20230122T170451_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T170451_20230122T175427_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T175427_20230122T184406_C001 | | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records |
| CS_OFFL_SIR_GOP_220230122T184406_20230122T193342_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T193342_20230122T202321_C001 | THOS (FES) Non-Equilibrium Long Period | There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records |
| CS_OFFL_SIR_GOP_220230122T202321_20230122T211257_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T211257_20230122T220235_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T220235_20230122T225212_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T225212_20230122T234150_C001 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |
| CS_OFFL_SIR_GOP_220230122T234150_20230123T003126_C002 | Mean Sea Surface (1), Mean Dynamic Topography (1) | There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records |

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.

P2P Quality Flags (20 Hz)

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:

P2P Quality Flags (20 Hz 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: 25

P2P Quality Flags (1 Hz & 1 Hz 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

29

6.8 P2P Ocean Retracking Quality Check

P2P Retracking Flags (20 Hz)

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 GOPR and GOPN 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 GOPR and GOPN products over sea ice, but this is to be expected.

Number of products with errors:

30

7. GOP 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_GOPM1B | 219 | 219 | 7 | 212 | 0 |
| SIR_GOPR1B | 174 | 174 | 1 | 173 | 0 |
| SIR_GOPN1B | 109 | 109 | 2 | 107 | 0 |
| SIR_GOPM_2 | 219 | 219 | 158 | 61 | 0 |
| SIR_GOPR_2 | 174 | 174 | 88 | 86 | 0 |
| SIR_GOPN_2 | 109 | 109 | 45 | 64 | 0 |
| SIR_GOP_P2P | 29 | 29 | 0 | 29 | 0 |

7.1 QCC Errors

Number of QCC reports with errors:

0

7.2 QCC Warnings

Number of QCC reports with warnings

2244

Total number of occurrences of each warning

| | Total Hamilton of Cocal Hamilton | | | | | | |
|--------------|----------------------------------|--------------|------------|----------|----------------|---------------|------------------------|
| Product Type | BCSHNCDF | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCD | F RBSZOPOEPFE | OPLRMNCD RBSZOPOEPNCDF |
| SIR_GOPM1B | 212 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPM_2 | 0 | 45 | 43 | 0 | 48 | 0 | 40 |
| SIR_GOPN1B | 106 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPN_2 | 0 | 11 | 30 | 5 | 24 | 25 | 16 |
| SIR_GOPR1B | 172 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR GOPR 2 | 0 | 23 | 38 | 1 | 29 | 22 | 12 |

| Product Type | RPEPOPFDLRMNCDF | RPEPOPFDPLRMSARNCI | RPEPOPFDPLRMSINNCD | RPEPOPFDSARNCDF | RPEPOPFDSINNCDF | RPEPOPLRMNCDF | RPEPOPSARNCDF |
|--------------|-----------------|--------------------|--------------------|-----------------|-----------------|---------------|---------------|
| SIR_GOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPM_2 | 36 | 0 | 0 | 0 | 0 | 26 | 0 |
| SIR_GOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPN_2 | 0 | 0 | 16 | 0 | 30 | 0 | 0 |
| SIR_GOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPR_2 | 0 | 40 | 0 | 51 | 0 | 0 | 39 |

| Product Type | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF |
|--------------|---------------|------------|--------------|------------------|------------|---------------|-------------------|
| SIR_GOPM1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPM_2 | 0 | 6 | 30 | 0 | 3 | 39 | 0 |
| SIR_GOPN1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPN_2 | 22 | 19 | 44 | 49 | 29 | 21 | 23 |
| SIR_GOPR1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIR_GOPR_2 | 0 | 1 | 68 | 35 | 12 | 29 | 43 |

| Product Type | RSWHOEPNCDF | SPHRTASCNSNCDF | SOOHHIFHD | SCSTODHRNCDF | SCSTODNCDF - | - |
|--------------|-------------|----------------|-----------|--------------|--------------|---|
| SIR_GOPM1B | 0 | 0 | 0 | 0 | 0 | |
| SIR_GOPM_2 | 1 | 0 | 0 | 0 | 0 | |
| SIR_GOPN1B | 0 | 1 | 0 | 45 | 2 | |
| SIR_GOPN_2 | 9 | 0 | 0 | 0 | 0 | |
| SIR_GOPR1B | 0 | 0 | 0 | 173 | 11 | |
| SIR GOPR 2 | О | 0 | 2 | 0 | 0 | |

| Product Type | IOHHMOOR | MVIOEPFDNCDF | MVIOEPNCDF | MVIONCDF | RBSZOPOEPFDNCDF | RBSZOPOEPFDPLRMNC | RBSZOPOEPNCDF |
|--------------|----------|--------------|------------|----------|-----------------|-------------------|---------------|
| SIR_GOP_2_ | 14 | 27 | 27 | 6 | 29 | 16 | 29 |

| | Product Type | RPEPOPFDPLRMSINNCDI | RPEPOPFDSINNCDF | RPEPOPSINNCDF | RSSBCONCDF | RSSHAOFDNCDF | RSSHAOFDPLRMNCDF | RSSHAONCDF |
|---|--------------|---------------------|-----------------|---------------|------------|--------------|------------------|------------|
| | SIR_GOP_2_ | 15 | 26 | 19 | 20 | 29 | 19 | 26 |
| _ | | • | | | | • | | |

| Product Type | RSWHOEPFDNCDF | RSWHOEPFDPLRMNCDF | RSWHOEPNCDF | SPHLPQWNCDF | • | - | - |
|--------------|---------------|-------------------|-------------|-------------|---|---|---|
| SIR GOP 2 | 28 | 18 | 10 | 29 | | | |

| Test Description Key: | | | | |
|-------------------------|---|--|--|--|
| Abbreviation | Test name | Details | | |
| BCSHNCDF | BurstCounterStep20HzNetCDF | The burst counter should be one higher with regard to the previous burst counter | | |
| MVIOEPFDNCDF | MissingValueIntOceanExcludingPolarFD2NetCDF | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees | | |
| MVIOEPNCDF | MissingValueIntOceanExcludingPolarNetCDF | The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees | | |
| MVIONCDF | MissingValueIntOceanNetCDF | The value should not be a 'missing value' for surface type 0 only | | |
| RBSZOPOEPFDNCDF | 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 | | |
| RPEPOPFDLRMNCDF | RangePeakinessExcludingPolarOPFD2LRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| NCDF | | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPFDPLRMSINN CDF | RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPFDSARNCDF | RangePeakinessExcludingPolarOPFD2SARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPFDSINNCDF | RangePeakinessExcludingPolarOPFD2SINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPLRMNCDF | RangePeakinessExcludingPolarOPLRMNetCDF | The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPSARNCDF | RangePeakinessExcludingPolarOPSARNetCDF | The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RPEPOPSINNCDF | RangePeakinessExcludingPolarOPSINNetCDF | The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RSSBCONCDF | RangeSeaStateBiasCorrectionOceanNetCDF | The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean | | |
| RSSHAOFDNCDF | RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF | The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean | | |
| RSSHAOFDPLRMNCD 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 DF | RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| RSWHOEPNCDF | RangeSignificantWaveHeightOceanExcludingPolarNetCDF | The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees | | |
| SPHRTASCNSNCDF | SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF | Rel_Time_ASC_Node_Stop mismatch | | |
| SOOHHIFHD | SameOrOneHigher1HzIndexFor20HzData | The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample | | |
| SCSTODHRNCDF | SequenceCounterStepTODHRNetCDF | The sequence counter should be modulo 4 higher with regard to the previous sequence counter | | |
| SCSTODNCDF | SequenceCounterStepTODNetCDF | The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter | | |

7.3 Missing QCC Reports

Number of products with missing QCC reports:

L1B and L2 Product name

P2P Product name

CS_OFFL_SIR_GOP_2__20230122T234150_20230123T003126_C002