

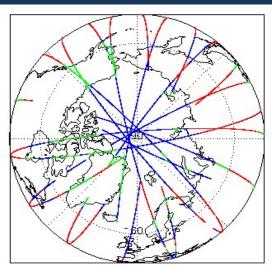
# 1. Overview

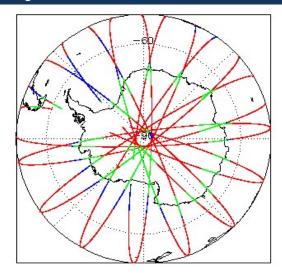
Report Production:	24-Mar-2022	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data	

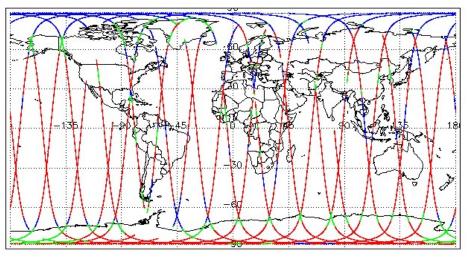
Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5
Measurement Quality Flag Check	See Section 5.6
Ocean Retracking Quality Check	See Section 5.7
QCC Error/ Warning Check	See Section 7.1 and 7.2

Mission / Instrument News		
22-Mar-2022	None	
23-Mar-2022	None	
24-Mar-2022	Nothing planned	

# 2. Global Coverage









# 3. Instrument Configuration

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

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

# 4. NOP Level 1B Data Quality Check

### 4.1 L1B Product Format Check

#### 4.2 L1B Product Header Analysis

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

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

Number of products with errors:

### 4.3 L1B Auxilary Data File Usage Check

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

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

Number of products with errors:

#### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

0

#### 4.5 L1B Measurement Confidence Data Check

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20220323T085153_20220323T090537_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

#### 4.6 L1B Waveform Group Data Check

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20220323T024844_20220323T025035_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20220323T184456_20220323T191518_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20220323T211829_20220323T213027_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220323T060901_20220323T061148_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220323T142000_20220323T142405_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220323T202222_20220323T202351_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220323T224728_20220323T224947_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T043058_20220323T043923_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T060640_20220323T060900_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T061149_20220323T061933_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T095740_20220323T095919_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T203944_20220323T204147_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220323T224121_20220323T224728_C001	Loss of Echo	The tracking echo is missing for one or more records

# 5. NOP Level 2 Data Quality Check

#### 5.1 L2 Product Format Check

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

Number of products with errors:

#### 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.

Wind Model File Usage: This file is currently not included in all L2 products

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

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

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

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

Product 40	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220323T125652_20220323T125710_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T002117_20220323T002235_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T020241_20220323T020443_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records
CS_OFFL_SIR_NOPN_2_20220323T034031_20220323T034352_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T034915_20220323T035034_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T051928_20220323T052248_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T060901_20220323T061148_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T065559_20220323T065758_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T070638_20220323T070809_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T074948_20220323T075050_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T120341_20220323T120546_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T142000_20220323T142405_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T152216_20220323T152329_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T165229_20220323T165355_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T183244_20220323T183546_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220323T183810_20220323T184325_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T210803_20220323T210918_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T211111_20220323T211348_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records
CS_OFFL_SIR_NOPN_2_20220323T224728_20220323T224947_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T225029_20220323T225210_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220323T233007_20220323T233154_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T011314_20220323T011820_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T024126_20220323T024210_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20220323T024710_20220323T024844_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20220323T025211_20220323T030023_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T043058_20220323T043923_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T061149_20220323T061933_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

CS_OFFL_SIR_NOPR_2_20220323T075050_20220323T075634_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T075645_20220323T075805_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20220323T093005_20220323T093201_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T093201_20220323T093648_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T110835_20220323T111356_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T124659_20220323T125652_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T142405_20220323T143141_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220323T192145_20220323T192256_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPR_2_20220323T224121_20220323T224728_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:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220323T085153_20220323T090537_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

# 5.6 L2 Measurement Quality Flag Check

# L2 Quality Flags (20 Hz)

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

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

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

Number of products with errors: 82

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220322T235301_20220323T002009_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T002519_20220323T003020_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T003303_20220323T005849_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T010044_20220323T010051_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T013151_20220323T015904_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T020443_20220323T021043_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T021214_20220323T023349_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T030343_20220323T033828_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T034352_20220323T034915_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T035044_20220323T035710_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T035959_20220323T040331_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T042129_20220323T042144_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

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CS_OFFL_SIR_NOPM_2_20220323T042723_20220323T043058_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T044328_20220323T045157_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T045442_20220323T051747_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T052402_20220323T052809_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T052945_20220323T054314_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T054502_20220323T054944_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T055309_20220323T055736_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T062213_20220323T065546_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T065759_20220323T070255_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T070316_20220323T070637_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T070905_20220323T071106_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T071355_20220323T074509_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T075926_20220323T080014_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T080514_20220323T081238_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T081842_20220323T083504_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T083642_20220323T084154_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T085153_20220323T090537_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T090832_20220323T091925_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T094721_20220323T095740_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T095919_20220323T101411_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T101605_20220323T102106_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T103343_20220323T104319_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T104629_20220323T105130_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T112200_20220323T112309_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T113019_20220323T115324_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T115641_20220323T120024_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS OFFL SIR NOPM 2 20220323T120623 20220323T123441 C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been
GS_OFFL_SIK_NOPW_2_202203231120025_202203231123441_C001	Range and Backscatter Quality	set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T123835_20220323T124006_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T130701_20220323T133247_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T133424_20220323T133939_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T134546_20220323T142000_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T144402_20220323T145100_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T145301_20220323T150130_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T150615_20220323T151249_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T151425_20220323T152014_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T152506_20220323T155913_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T163514_20220323T163703_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T163831_20220323T165218_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T165355_20220323T165907_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T170426_20220323T172722_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T173007_20220323T173922_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T175108_20220323T175150_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T180056_20220323T180228_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T180339_20220323T180824_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T181002_20220323T183127_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T183546_20220323T183810_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T184456_20220323T191518_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T191922_20220323T191937_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T193402_20220323T195308_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T195324_20220323T200611_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T201902_20220323T202222_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220323T202351_20220323T203944_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPM_2_20220323T204147_20220323T205133_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T210918_20220323T211111_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T211404_20220323T211555_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T211829_20220323T213027_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T213507_20220323T214219_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T215653_20220323T220124_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T220311_20220323T221813_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T230518_20220323T232935_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T233154_20220323T234027_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPM_2_20220323T234234_20220324T000817_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPN_2_20220323T130352_20220323T130437_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPN_2_20220323T152216_20220323T152329_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 r and the OCOG Altimeter Range and Backscatter Quality Flags have bee set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T024111_20220323T024121_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T024126_20220323T024210_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T035710_20220323T035959_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T084208_20220323T084213_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T214219_20220323T214302_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		
CS_OFFL_SIR_NOPR_2_20220323T222205_20220323T222602_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records		

# L2 Quality Flags (20 Hz PLRM)

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20220323T002117_20220323T002235_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T021044_20220323T021214_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T043924_20220323T044245_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T054944_20220323T055309_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T065559_20220323T065758_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

S_OFFL_SIR_NOPN_2_20220323T07638_20220323T07609_0001  CS_OFFL_SIR_NOPN_2_20220323T074537_20220323T074036_0001  CS_OFFL_SIR_NOPN_2_20220323T074948_20220323T075050_0001  CS_OFFL_SIR_NOPN_2_20220323T074948_20220323T076050_0001  CS_OFFL_SIR_NOPN_2_20220323T074948_20220323T076050_0001  CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_0001  CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_0001  CS_OFFL_SIR_NOPN_2_20220323T094452_20220323T084609_0001  CS_OFFL_SIR_NOPN_2_20220323T094452_20220323T094721_0001  CS_OFFL_SIR_NOPN_2_20220323T10418_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10418_20220323T103343_0001  CS_OFFL_SIR_NOPN_2_20220323T10418_20220323T103343_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10605_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T106553_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T106555_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T106555_0001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T110835_0001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_0001  CS_OFFL_SIR_NOPN_2_20	by Flags by Flags by Flags by Flags for one or for one or
S_OFFL_SIR_NOPN_2_20220323T07453_20220323T074536_C001  All blackstater Quality PLRM. OCOG All meter Range and Backscatter Quality Flags has for one or more records  S_OFFL_SIR_NOPN_2_20220323T074948_20220323T075050_C001  CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_C001  CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_C001  CS_OFFL_SIR_NOPN_2_20220323T094452_20220323T094721_C001  CS_OFFL_SIR_NOPN_2_20220323T094452_20220323T094721_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T104505_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T104509_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T104629_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T104639_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T104639_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104639_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104649_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104649_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104649_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104649_C001  CS_OFFL_SIR_NOPN_2_20220323T104419_20220323T104649_C001  CCOG_Allimeter Range	y Flags for one or for one or
CS_OFFL_SIR_NOPN_2_20220323T074948_20220323T075050_C001  All Backscatter Quality PLRM, OCG Altimeter Range and Backscatter Quality PLRM and Backscatter Quality PLRM.  CS_OFFL_SIR_NOPN_2_20220323T084403_20220323T084609_C001  CS_OFFL_SIR_NOPN_2_20220323T094452_20220323T094721_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T10310_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CCOG Altimeter Range and Backscatter Quality PLRM. CCOG	for one or
CS_OFFL_SIR_NOPN_2_20220323T10418_20220323T10605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T10605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T10605_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T104319_20220323T104629_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T112631_C001  CCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set more records  CCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	for one or by Flags
CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T103110_20220323T103343_C001  CS_OFFL_SIR_NOPN_2_20220323T104319_20220323T104629_C001  CS_OFFL_SIR_NOPN_2_20220323T104319_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T10835_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CCOG Altimeter Range Quality PLRM, CCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM and Backscatter Quality PLRM, CCOG Altimeter Range and Backscatter Quality PLRM.  CCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM and Backscatter Quality PLRM, CCOG Altimeter Range and Backscatter Quality PLRM.  CCOG Altimeter Range and Backscatter Quality PLRM, CCOG Altimeter Range and Backscatter Quality PLRM.  CCOG Altimeter Range and Backscatter Quality PLRM.  CCOG Altimeter Range and Backscatter Quality PLRM.  CCOG Backscatter Quality PLRM, CCOG Altimeter Range and Backscatter Quality Flags have been set in core records.  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CCOG Altimeter Range Quality PLRM, CCOG Range and Backscatter Quality Flags have been set in core records.  CCOG Altimeter Range Quality PLRM, CCOG Range and Backscatter Quality Flags have been set in core records.  CCOG Altimeter Range Quality PLRM, CCOG Range and Backscatter Quality Flags have been set in core records.	y Flags
CS_OFFL_SIR_NOPN_2_20220323T101418_20220323T101605_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM in the OCOG Altimeter Range and Backscatter Quality Plags have been set in ocog Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Backscatte	
CS_OFFL_SIR_NOPN_2_20220323T104319_20220323T104629_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T10419_20220323T10835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112646_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T120546_C001  CCGG Altimeter Range Quality PLRM, CCGG Altimeter Range and Backscatter Quality PLRM, CCGG Altimeter Range and Backscatter Quality PLRM, CCGG Altimeter Range Quality PLRM, CCGG Altimeter Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the CCGG Range and Backscatter Quality Flags have been set in the	
CS_OFFL_SIR_NOPN_2_20220323T104319_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Range and Backscatter Quality Flags have been set in order records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, ocog Altimeter Range and Backscatter Quality PLRM, ocog B	or one or
CS_OFFL_SIR_NOPN_2_20220323T105130_20220323T105253_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T120341_20220323T120546_C001  CS_OFFL_SIR_NOPN_2_20220323T120341_20220323T120546_C001  CS_OFFL_SIR_NOPN_2_20220323T120341_20220323T120546_C001  The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range and Backscatter Quality Flags have been set in the OCOG Altimeter Range and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality Flags have been set in the OCOG Range and Backscatter Quality F	or one or
CS_OFFL_SIR_NOPN_2_20220323T110419_20220323T110835_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  CS_OFFL_SIR_NOPN_2_20220323T112445_20220323T112631_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set improve records  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set improve records  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set improve records	
OCOG Backscatter Quality more records  OCOG Backscatter Quality more records  OCOG Range and Backscatter Quality Flags have been set:	
	or one or
	or one or
CS_OFFL_SIR_NOPN_2_20220323T123526_20220323T123757_C001  OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality  The OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T130352_20220323T130437_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T151300_20220323T151425_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	or one or
Cs_OFFL_SIR_NOPN_2_20220323T161357_20220323T161441_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 PLRM and Backscatter Quality PLRM  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM and Backscatter Quality PLRM	
CS_OFFL_SIR_NOPN_2_20220323T162023_20220323T162108_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T162936_20220323T163121_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T165229_20220323T165355_C001  OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Flags have been set more records  The OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T180824_20220323T180852_C001  OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, or records  The OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T180922_20220323T181002_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	or one or
CS_OFFL_SIR_NOPN_2_20220323T183244_20220323T183546_C001  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM and Backscatter Quality PLRM or one or more records  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter Quality Flags have been compared to the ocean Altimeter Range and Backscatter	
CS_OFFL_SIR_NOPN_2_20220323T201719_20220323T201902_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	
CS_OFFL_SIR_NOPN_2_20220323T202222_20220323T202351_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 PLRM and Backscatter Quality PLRM  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been compared to the OCOG Altimeter Range and Backscatter Quality PLRM	or one or
CS_OFFL_SIR_NOPN_2_20220323T205133_20220323T205454_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set more records	y Flags
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 PLRM and Backscatter Quality PLRM  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM and Backscatter Quality PLRM and Backscatter Quality Flags have to rome or more records	ly Flags ave been

CS_OFFL_SIR_NOPN_2_20220323T211111_20220323T211348_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, 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
	PLRM  OCOG Altimeter Range Quality PLRM,	set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or
CS_OFFL_SIR_NOPN_2_20220323T213135_20220323T213354_C001	OCOG Backscatter Quality	more records
CS_OFFL_SIR_NOPN_2_20220323T213443_20220323T213507_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T214559_20220323T214641_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T224728_20220323T224947_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220323T234028_20220323T234215_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T010855_20220323T011103_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T011138_20220323T011253_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T025211_20220323T030023_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T042346_20220323T042615_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T043058_20220323T043923_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T075050_20220323T075634_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T080354_20220323T080514_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T084609_20220323T085153_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T090537_20220323T090832_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T092201_20220323T092422_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T093201_20220323T093648_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T095740_20220323T095919_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T110108_20220323T110341_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T110835_20220323T111356_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T124659_20220323T125652_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T134437_20220323T134546_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T142405_20220323T143141_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T155913_20220323T155946_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T161512_20220323T161540_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T173922_20220323T174037_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPR_2_20220323T174147_20220323T174241_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T175331_20220323T180056_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T183127_20220323T183244_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T211556_20220323T211829_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T213027_20220323T213134_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T214219_20220323T214302_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T221813_20220323T221952_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T222605_20220323T222620_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T223457_20220323T223512_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T224121_20220323T224728_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220323T225301_20220323T225521_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

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

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

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

Number of products with errors:

### 5.7 L2 Ocean Retracking Quality Check

### L2 Retracking Flags (20 Hz)

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

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

Number of products with errors:

# L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors: 129

# 7. NOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	181	181	5	176	0
SIR_NOPR1B	116	116	0	116	0
SIR_NOPN1B	105	105	3	99	3
SIR_NOPM_2	181	181	129	52	0
SIR_NOPR_2	116	116	46	68	2
SIR NOPN 2	102	102	44	58	0

### 7.1 QCC Errors

Number of QCC reports with errors:

Total number of occurrences of each

					rotal number of occurrences	or each error				
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	RRTAISSOPOBHRNCDF	-	-	-	-	-
SIR_NOPN1B	0	0	0	0	3					
SIR NOPR 2	2	2	2	2	0					

Test Description Key:		
Abbreviation	Test name	Details
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF
RL RangeLongitude_7		Longitude should be between -180E7 and 180E7
RRTAISSOPOBHRNCDE	RangeRecordTAlStartStopOPOrBlankHRNetCD	The time value should be between the the record TAI start/stop times of the MPH with a margin of 0.5 - NetCDF

Number of QCC reports with warnings

1665

Total number	of occurrences	of each warning

	Total number of occurrences of each warning								
ſ	Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	
	SIR_NOPM1B	176	0	0	0	0	0	0	
	SIR_NOPM_2	0	0	40	38	0	44	0	
	SIR_NOPN1B	101	0	0	0	0	0	0	
	SIR_NOPN_2	0	0	8	32	4	22	28	
	SIR_NOPR1B	111	0	0	0	0	0	0	
	SIR_NOPR_2	0	2	22	42	1	28	25	

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCE	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	38	0	27	0	0	0	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	18	1	0	0	17	0	32
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	13	1	0	40	0	45	0

Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	23	0	0	6	32	0	6
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	24	14	43	52	26
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	38	0	3	54	23	9

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	39	0	5	0	0	0	0
SIR_NOPN1B	0	0	0	1	0	42	0
SIR_NOPN_2	27	31	12	0	0	0	0
SIR_NOPR1B	0	0	0	0	0	116	5
SIR NOPR 2	31	41	3	0	3	0	0

Test Description Key:							
Abbreviation	Test name	Details					
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter					
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)					
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees					
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees					
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only					
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean					
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
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