

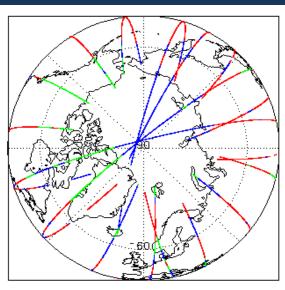
1. Overview

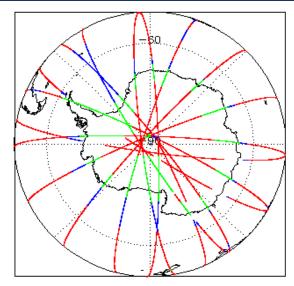
Report Production:	20-Apr-2021	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data	

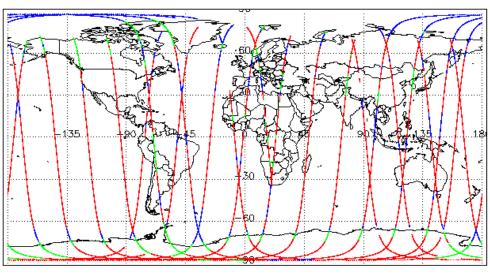
Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement 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	
18-Apr-2021	None
19-Apr-2021	SIRAL unavailability due to MMFU switch affecting all modes on 19/04/2021 from 16:29:33 until 20:57:11, and affecting SARIn from 12:31:37 until 21:01:09
20-Apr-2021	Nothing planned

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A
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 IOPR and IOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

4.3 L1B Auxilary Data File Usage Check

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

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:

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4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

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4.5 L1B Measurement Confidence Data Check

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

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

Number of products with errors:

 Product
 Test Failed
 Description

 CS_OFFL_SIR_NOPM1B_20210419T030531_20210419T030845_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 products over land, but this is to be expected.

13

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20210419T015553_20210419T020523_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20210419T041523_20210419T045006_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210419T013326_20210419T013711_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210419T031340_20210419T031742_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210419T041059_20210419T041418_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T024101_20210419T024359_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T031008_20210419T031230_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T083015_20210419T083105_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T112629_20210419T112806_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T142654_20210419T142833_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T150539_20210419T150640_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T211529_20210419T211907_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210419T230910_20210419T231640_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 binary product file (.DBL).

Number of products with errors:

0

5.2 L2 Product Header Analysis

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

Number of products with errors:

5.3 L2 Auxiliary Data File Usage Check

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

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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20210419T082212_20210419T082339_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_20210419T013716_20210419T013852_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_20210419T023137_20210419T023750_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_20210419T031340_20210419T031742_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_20210419T041059_20210419T041418_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_20210419T062641_20210419T063257_C001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with 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_20210419T073104_20210419T073223_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_20210419T082940_20210419T083015_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_20210419T090758_20210419T091106_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_20210419T100407_20210419T100531_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20210419T104050_20210419T104205_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_20210419T104657_20210419T105024_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_20210419T122135_20210419T122410_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_20210419T221644_20210419T222003_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_20210419T222530_20210419T222655_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_20210418T235938_20210419T000701_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_20210419T013853_20210419T014413_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_20210419T031742_20210419T032055_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_20210419T032055_20210419T032453_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_20210419T082340_20210419T082553_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_20210419T083015_20210419T083105_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_20210419T133910_20210419T134124_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPR_2_20210419T150539_20210419T150640_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPR_2_20210419T230910_20210419T231640_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_20210419T030531_20210419T030845_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 (20Hz)

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

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20210419T001044_20210419T001233_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_NOPM_2_20210419T001316_20210419T002122_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.

Absented Congrey of State Control Control	CS_OFFL_SIR_NOPM_2_20210419T002603_20210419T002759_C001	Ocean Altimeter Range, SSHA, SWH 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 set for one or more process.
COLORITION COLORITICATION COLORITION COLORIT	CS_OFFL_SIR_NOPM_2_20210419T002812_20210419T003638_C001	Ocean Altimeter Range, SSHA, SWH 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
Dept. Set NOPM 2 2020449710105 2020449701415 20204 2020449701415	CS_OFFL_SIR_NOPM_2_20210419T003810_20210419T004336_C001	Ocean Altimeter Range, SSHA, SWH 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
Bassacetre Quality (COS)	CS_OFFL_SIR_NOPM_2_20210419T004524_20210419T005044_C001		
Description of the control of the co	CS_OFFL_SIR_NOPM_2_20210419T010155_20210419T011301_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022915_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022904_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022905_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022905_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022905_COORD CS_OFFL_SIR_NOPM_2_20210419702902_202104197022905_COORD CS_OFFL_SIR_NOPM_2_20210419702902_20210419702905_COORD CS_OFFL_SIR_NOPM_2_20210419702902_20210419702905_COORD CS_OFFL_SIR_NOPM_2_20210419702905_C0010419702	CS_OFFL_SIR_NOPM_2_20210419T011305_20210419T011418_C001		
and Backscatter Caulity, COS Allmenter Range and Backscatter Caulity Flags have been aditionable franciscoper to come records. CB_OPFL_SIR_NOPM2_270716410110301_20210410110338_0001 CB_OPFL_SIR_NOPM2_270716410110301_20210410110332_0001 CB_OPFL_SIR_NOPM2_27071641011010332_00110110033_0001 CB_OPFL_SIR_NOPM2_2707164101100378_270104101100332_0001 CB_OPFL_SIR_NOPM2_2707164101100378_270104101100332_0001 CB_OPFL_SIR_NOPM2_2707164101100378_270104101100332_0001 CB_OPFL_SIR_NOPM2_2707164101100378_270104101100332_0001 CB_OPFL_SIR_NOPM2_270716410100378_2701041011003441_0001 CB_OPFL_SIR_NOPM2_270716410100378_270104101100394_0001 CB_OPFL_SIR_NOPM2_270716410100378_270104101100394_0001 CB_OPFL_SIR_NOPM2_2707164101003792_00010410100394_0001 CB_OPFL_SIR_NOPM2_2707164101003002_00010410100394_0001 CB_OPFL_SIR_NOPM2_2707164101003002_00010410100394_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003913_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003913_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003002_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003003_000104101003137_0001 CB_OPFL_SIR_NOPM2_2707164101003003_00010410100301	CS_OFFL_SIR_NOPM_2_20210419T011608_20210419T012448_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscalter Caulity, CODE Almonter Range and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope and Backscalter Caulity Cope and Backscalter Caulity Cope and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Cope and Backscalter Caulity Cope Almonter Range and Backscalter Caulity Flags have been and backscalter Caulity Cope Almonter Range and Backscalter Caulity Flags have been and backscalter Caulity Cope Almonter Range and Backscalter Caulity Flags have been and backscalter Caulity Cope Almonter Range and Backscalter Caulity Flags have been set backscalter Caulity Flags have been and backscalter Caulity Flags have bee	CS_OFFL_SIR_NOPM_2_20210419T012615_20210419T012852_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and the COGO Affirmeter Range and Backscatter Quality Flags have been afformed Range Affirmed Range Quality Affirmed Range Affirmed Range Quality Affirmed Range Affir	CS_OFFL_SIR_NOPM_2_20210419T013001_20210419T013326_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality COCG Altimeter Range and Backscatter Quality Flags have been and Backscatter Quality Flags Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T022020_20210419T022137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023020_20210419T022137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023020_20210419T023137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023020_20210419T023137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023597_02010419T023137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023597_02010419T023137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023597_02010419T023137_C0011 CS_OFFL_SIR_NOPM_2_20210419T023597_02010419T023010_C001 CS_OFFL_SIR_NOPM_2_20210419T030331_20210419T030845_C0011 CS_OFFL_SIR_NOPM_2_20210419T030331_20210419T030845_C0011 CS_OFFL_SIR_NOPM_2_20210419T030331_20210419T030845_C0011 CS_OFFL_SIR_NOPM_2_20210419T030331_20210419T030845_C0011 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T040913_C0011 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T040913_C0	CS_OFFL_SIR_NOPM_2_20210419T015553_20210419T020523_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_NOPM_2_202104197023092_02104197023013_C001 CS_OFFL_SIR_NOPM_2_202104197023002_02104197023013_C001 CS_OFFL_SIR_NOPM_2_202104197023002_02104197023013_C001 CS_OFFL_SIR_NOPM_2_202104197023002_02104197023013_C001 CS_OFFL_SIR_NOPM_2_202104197023002_02104197023013_C001 CS_OFFL_SIR_NOPM_2_202104197023002_02104197023137_C001 CS_OFFL_SIR_NOPM_2_202104197023702_02104197023137_C001 CS_OFFL_SIR_NOPM_2_202104197023702_02104197023101_C001 CS_OFFL_SIR_NOPM_2_202104197023702_02104197023101_C001 CS_OFFL_SIR_NOPM_2_202104197023702_02104197023101_C001 CS_OFFL_SIR_NOPM_2_202104197023702_02104197030401_C001 CS_OFFL_SIR_NOPM_2_202104197030531_202104197030405_C001 CS_OFFL_SIR_NOPM_2_202104197030531_202104197030405_C001 CS_OFFL_SIR_NOPM_2_202104197030532_02104197030405_C001 CS_OFFL_SIR_NOPM_2_202104197030532_0210419704042_C001 CS_OFFL_SIR_NOPM_2_202104197030532_0210419704042_C001 CS_OFFL_SIR_NOPM_2_202104197030532_0210419704042_C001 CS_OFFL_SIR_NOPM_2_202104197034502_0210419704042_C001 CS_OFFL_SIR_NOPM_2_202104197034502_02104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197040432_02104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197054413_020104197040913_C001 CS_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C001 CCC_OFFL_SIR_NOPM_2_202104197054413_020104197054814_C	CS_OFFL_SIR_NOPM_2_20210419T020726_20210419T021441_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T023002_20210419T023013_C001 CS_OFFL_SIR_NOPM_2_20210419T023002_20210419T023137_C001 CS_OFFL_SIR_NOPM_2_20210419T023020_20210419T023137_C001 CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T023137_C001 CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T023101_C001 Allimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T024101_C001 Allimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T030401_C001 CS_OFFL_SIR_NOPM_2_20210419T0239547_20210419T030401_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030404_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030404_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T040142_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040142_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054145_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T	CS_OFFL_SIR_NOPM_2_20210419T021556_20210419T022240_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T02302_0210419T023137_C001 CS_OFFL_SIR_NOPM_2_20210419T02305_02010419T024101_C001 CS_OFFL_SIR_NOPM_2_20210419T02375_02010419T024101_C001 CS_OFFL_SIR_NOPM_2_20210419T025947_20210419T030401_C001 CS_OFFL_SIR_NOPM_2_20210419T025947_20210419T030405_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T03045_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T03045_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T03045_C001 CS_OFFL_SIR_NOPM_2_20210419T030450_20210419T04042_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040432_C0010419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T055414_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T055414_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T055414_20210419T056414_C001 CS_OFFL_SIR_NOPM_2_20210419T055414_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062450_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062450_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062450_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062450_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062450_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_202	CS_OFFL_SIR_NOPM_2_20210419T022450_20210419T022944_C001		
CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T024101_C001 CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T030401_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030401_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030845_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030845_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030845_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030845_C001 CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T040142_C001 CS_OFFL_SIR_NOPM_2_20210419T034550_20210419T040142_C001 CS_OFFL_SIR_NOPM_2_20210419T034550_20210419T040142_C001 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T0400913_C001 CS_OFFL_SIR_NOPM_2_20210419T04032_20210419T045006_C001 CS_OFFL_SIR_NOPM_2_20210419T04523_20210419T045006_C001 CS_OFFL_SIR_NOPM_2_20210419T045413_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T062157_C001	CS_OFFL_SIR_NOPM_2_20210419T023002_20210419T023013_C001		
and Backscatter Quality, COCG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags and the COCG Altimeter Range	CS_OFFL_SIR_NOPM_2_20210419T023020_20210419T023137_C001		
and Backscatter Quality, COCG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_NOPM_2_20210419T023750_20210419T024101_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality Flags have been Altimeter Range Range SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range Range Range Quality, CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T045006_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T054015_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CCG_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. C	CS_OFFL_SIR_NOPM_2_20210419T025947_20210419T030401_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T04006_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T04006_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T05434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062457_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C0	CS_OFFL_SIR_NOPM_2_20210419T030531_20210419T030845_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T045006_C001 CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T054015_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054115_C001 CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T06	CS_OFFL_SIR_NOPM_2_20210419T034550_20210419T040142_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T054016_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range 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_20210419T054413_20210419T054814_C001 OCGA Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. OCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. OCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPM_2_20210419T040432_20210419T040913_C001		
CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_2021041	CS_OFFL_SIR_NOPM_2_20210419T041523_20210419T045006_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 Backscatter Quality CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 Backscatter Quality Gor one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range 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_20210419T062437_20210419T062640_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065046_C001 CS_OFFL_SIR_NOPM_2_20210419T06452_20210419T065026_C001	CS_OFFL_SIR_NOPM_2_20210419T051519_20210419T054115_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001	CS_OFFL_SIR_NOPM_2_20210419T054413_20210419T054814_C001		
CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 and the OCOG Altimeter Range and Backscatter Quality set for one or more records. CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001 and the OCOG Altimeter Range and Backscatter Quality Flags have been set.	CS_OFFL_SIR_NOPM_2_20210419T055434_20210419T062157_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_NOPM_2_20210419T062437_20210419T062640_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_NOPM_2_20210419T064452_20210419T065026_C001		

CS_OFFL_SIR_NOPM_2_20210419T065039_20210419T065253_C001	OCOG Altimeter Range Quality, OCOG	The OCOG Altimeter Range and Backscatter Quality Flags have been set
	Backscatter Quality	for one or more records.
CS_OFFL_SIR_NOPM_2_20210419T065454_20210419T065946_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_20210419T065950_20210419T072113_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_20210419T072248_20210419T072729_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_20210419T073419_20210419T080854_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_20210419T082212_20210419T082339_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_20210419T085320_20210419T085543_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_20210419T085743_20210419T090022_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_20210419T090235_20210419T090757_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_20210419T091347_20210419T093604_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_20210419T093850_20210419T094748_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_20210419T100034_20210419T100407_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_20210419T102010_20210419T102500_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_20210419T102647_20210419T103934_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_20210419T104205_20210419T104656_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_20210419T105302_20210419T105913_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_20210419T105922_20210419T112538_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_20210419T114616_20210419T115010_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_20210419T115141_20210419T121437_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_20210419T122925_20210419T123015_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_20210419T123259_20210419T123905_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_20210419T124858_20210419T125024_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_20210419T125506_20210419T130229_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_20210419T131807_20210419T132121_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_20210419T132349_20210419T132928_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_20210419T133054_20210419T133910_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_20210419T134124_20210419T135623_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.
	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.
CS_OFFL_SIR_NOPM_2_20210419T141203_20210419T142654_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_20210419T142833_20210419T144402_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.
	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_20210419T150640_20210419T151239_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_20210419T151401_20210419T151611_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_20210419T152237_20210419T153759_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.
	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_20210419T155141_20210419T161423_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_20210419T212412_20210419T212810_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_20210419T214040_20210419T214919_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_20210419T215205_20210419T221421_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.
	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_20210419T222726_20210419T224035_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_20210419T224223_20210419T224833_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_20210419T225017_20210419T225458_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_20210419T231932_20210419T235249_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_20210419T083105_20210419T083250_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_NOPN_2_20210419T113818_20210419T113822_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_20210419T003638_20210419T003810_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_20210419T031742_20210419T032055_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_20210419T085143_20210419T085320_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.
	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.

CS_OFFL_SIR_NOPR_2_20210419T130526_20210419T130603_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20210419T230414_20210419T230556_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_NOPR_2_20210419T231816_20210419T231931_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 (20Hz PLRM)

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20210419T004350_20210419T004453_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_20210419T014413_20210419T014438_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_20210419T015146_20210419T015553_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_20210419T022306_20210419T022450_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_20210419T023137_20210419T023750_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_20210419T024814_20210419T024912_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_20210419T024944_20210419T025546_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_20210419T030845_20210419T031008_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_20210419T031340_20210419T031742_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_20210419T041059_20210419T041418_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_20210419T045006_20210419T045129_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_20210419T051135_20210419T051519_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_20210419T054814_20210419T054818_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_20210419T062641_20210419T063257_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_20210419T064158_20210419T064225_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_20210419T072729_20210419T072733_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_20210419T073104_20210419T073223_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_20210419T081057_20210419T081228_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_20210419T090108_20210419T090235_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_20210419T090758_20210419T091106_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_20210419T100407_20210419T100531_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_20210419T104657_20210419T105024_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_20210419T114224_20210419T114316_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_20210419T122135_20210419T122410_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_20210419T210109_20210419T210215_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_20210419T212246_20210419T212412_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_20210419T213704_20210419T213740_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_20210419T222530_20210419T222655_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_20210419T224833_20210419T224936_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_20210418T235938_20210419T000701_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_20210419T000845_20210419T000850_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_20210419T005453_20210419T010155_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_20210419T011418_20210419T011608_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_20210419T012448_20210419T012615_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_20210419T013853_20210419T014413_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_20210419T024101_20210419T024359_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_20210419T031742_20210419T032055_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_20210419T032055_20210419T032453_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_20210419T034052_20210419T034550_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_20210419T064225_20210419T064452_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_20210419T072113_20210419T072124_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_20210419T083015_20210419T083105_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_20210419T091106_20210419T091347_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_20210419T103934_20210419T104050_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_20210419T105024_20210419T105302_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_20210419T112538_20210419T112624_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_20210419T112629_20210419T112806_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_20210419T121437_20210419T122135_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_20210419T130454_20210419T130457_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_20210419T130526_20210419T130603_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_20210419T133910_20210419T134124_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_20210419T145824_20210419T150005_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_20210419T150220_20210419T150337_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_20210419T150539_20210419T150640_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_20210419T153800_20210419T153903_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_20210419T161424_20210419T161605_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_20210419T211529_20210419T211907_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_20210419T212116_20210419T212245_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_20210419T221421_20210419T221644_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_20210419T230414_20210419T230556_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_20210419T230910_20210419T231640_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

L2 Quality Flags (1 Hz & 1Hz PLRM)

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

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

Number of products with errors:

147

5.7 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20Hz)

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

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

Number of products with errors:

L2 Retracking Flags (20Hz, PLRM)

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

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

Number of products with errors: 99

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	151	151	2	149	0
SIR_NOPR1B	103	103	0	103	0
SIR_NOPN1B	73	73	1	72	0
SIR_NOPM_2	151	151	97	54	0
SIR_NOPR_2	103	103	33	64	6
SIR NOPN 2	73	73	34	39	0

7.1 QCC Errors

SIR_NOPR_2

Number of QCC reports with errors:

Product Type RLOBOPNCDF

1

Total number of occurrences of each error								
RLOBOPNCDF	RL	RL	-	-	-	-	-	ĺ
								Е

Test Description Key:						
Abbreviation	Test name	Details				
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF				
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6				
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7				
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF				
RL	RangeLongitude_6	Longitude should be between -180E6 and 180E6				
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7				

7.2 QCC Warnings

Number of QCC reports with warnings

1442

	Total number of cocumences of cuent warning						
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_NOPM1B	149	0	0	0	0	0	0
SIR_NOPM_2	0	0	39	35	0	37	0
SIR_NOPN1B	71	0	0	0	0	0	0
SIR_NOPN_2	0	0	5	20	2	16	20
SIR_NOPR1B	97	0	0	0	0	0	0
SIR_NOPR_2	0	6	29	39	2	28	26

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	31	0	36	0	0	0	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	11	0	0	0	15	0	23
SIR_NOPR1B	0	0	0	0	0	0	0
SIR NOPR 2	12	3	0	41	0	49	0

Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	27	0	0	3	28	0	4
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	18	9	24	35	18
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	40	0	3	53	23	2

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF
SIR_NOPM1B	0	0	0	0	1	0	0
SIR_NOPM_2	36	0	2	0	1	0	0
SIR_NOPN1B	0	0	0	0	0	0	26
SIR_NOPN_2	21	21	7	0	0	0	0
SIR_NOPR1B	0	0	0	0	0	0	103
SIR_NOPR_2	36	45	2	1	0	11	0

Test Description Key:	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	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean					
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean					
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RSWHOEPFDPLRMNC	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)					
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					

7.3 Missing QCC Reports