

QA4EO Daily Report for NOP data:

16/09/2021

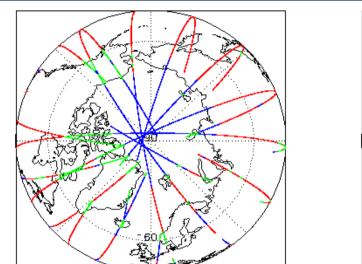
onert Dreduction.	17 Sep 2021	Check	L1 & L2
Report Production:	17-Sep-2021	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CrucSet Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Useu:	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
L1B & L2 Science Data		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
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.2

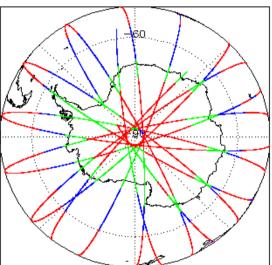
2. Global Coverage

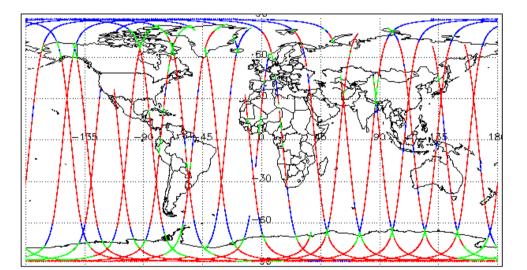
1. Overview

Mission / Instrument News 15-Sep-2021 None

15-Sep-2021	
16-Sep-2021	SIRAL unavailability due to Orbit Control Manoeuvre from 00:55:57 to 02:42:49
17-Sep-2021	Nothing planned







Mode Coverage	
	LRM
	SAR
	SARIn

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

4. NOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis

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

L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B IOPR and IOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

4.3 L1B Auxilary Data File Usage Check

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

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:

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:
 0

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.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20210916T155545_20210916T163020_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20210916T175514_20210916T181000_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T055520_20210916T055641_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T072944_20210916T073043_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T091401_20210916T091850_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T154421_20210916T154524_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T185946_20210916T190246_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210916T190345_20210916T190558_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210916T122814_20210916T123609_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210916T155119_20210916T155544_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.

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.

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> 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_20210916T091850_20210916T093202_C001	Topography (1), Total Geocentric Ocean	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
		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

CC_OFFL_SIR_NOPN_2_20210916T0031927_20210916T0031927_20210916T0031927_20210916T0031927_20210916T0031927_20210916T0032925_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Topography (1) CS_OFFL_SIR_NOPN_2_20210916T0031927_20210916T0032902_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) ard the Mean Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPN_2_20210916T050010_20210916T055641_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1), ite Mean Dynamic Topography height (solution 1) and the Mean Topography height (solution 1) and the Mean Dynamic Topography Light (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1), ite Mean Dynamic CS_OFFL_SIR_NOPN_2_20210916T065520_20210916T065641_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_NOPN_2_20210916T0663538_20210916T064133_C001 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_20210916T073643_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) ard the Mean Topography (1) <tr< th=""><th>Dynamic Dynamic Dynamic amic ride height Dynamic Dynamic Dynamic Dynamic</th></tr<>	Dynamic Dynamic Dynamic amic ride height Dynamic Dynamic Dynamic Dynamic
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CS_OFFL_SIR_NOPN_2_20210916T050010_20210916T050115_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records CS_OFFL_SIR_NOPN_2_20210916T055520_20210916T055641_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 (GOT) CS_OFFL_SIR_NOPN_2_20210916T065338_20210916T064133_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPN_2_20210916T064449_20210916T065028_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPN_2_20210916T072944_20210916T073043_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPN_2_20210916T073447_20210916T073659_C001 Mean Sas Surface (1), Mean Dynamic Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPN_2_20210916T073823_20210916T074048_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records CS_OFFL_SIR_NOPN_2_20210916T0782759_20210916T082957_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Topography (1), Total Geocentric Ocean Tide (GOT), Tatal Geocentric O	amic Tide height Dynamic one or Dynamic Dynamic
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CS_OFFL_SIR_NOPN_2_20210916T164202_20210916T164345_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPN_2_20210916T172547_20210916T172643_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPN_2_20210916T181103_20210916T181245_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	one or
CS_OFFL_SIR_NOPN_2_20210916T181953_20210916T182209_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography (1) for one or more records	Jynamic
CS_OFFL_SIR_NOPN_2_20210916T185946_20210916T190246_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	one or
CS_OFFL_SIR_NOPN_2_20210916T190345_20210916T190558_C001 Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) Topography height (solution 1) and the Total Geocentric Ocean (solution 1: GOT) for one or more records	
CS_OFFL_SIR_NOPN_2_20210916T195011_20210916T195201_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	one or
CS_OFFL_SIR_NOPN_2_20210916T195848_20210916T200334_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPN_2_20210916T204027_20210916T204422_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPN_2_20210916T214002_20210916T214153_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T005105_20210916T005558_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T104907_20210916T105427_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T121714_20210916T121915_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	ne or
CS_OFFL_SIR_NOPR_2_20210916T122814_20210916T123609_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T140648_20210916T141510_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T154745_20210916T155119_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records	Dynamic
CS_OFFL_SIR_NOPR_2_20210916T155119_20210916T155545_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	me or
CS_OFFL_SIR_NOPR_2_20210916T172643_20210916T173224_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Topography height (solution 1) for one or more records)ynamic
CS_OFFL_SIR_NOPR_2_20210916T173238_20210916T173413_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for more records	

CS_OFFL_SIR_NOPR_2_20210916T175339_20210916T175514_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_20210916T190558_20210916T190902_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_20210916T190903_20210916T191253_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_20210916T204423_20210916T204942_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (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.

84

0

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20210916T000126_20210916T000604_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_20210916T000608_20210916T000940_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_20210916T001447_20210916T004726_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_20210916T024609_20210916T024636_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_20210916T025846_20210916T030333_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_20210916T033245_20210916T033740_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_20210916T033750_20210916T034321_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_20210916T034546_20210916T040851_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_20210916T042258_20210916T042844_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_20210916T043015_20210916T045310_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_20210916T050245_20210916T050438_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_20210916T051234_20210916T051815_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_20210916T051829_20210916T052739_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_20210916T052742_20210916T052902_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_20210916T053343_20210916T054047_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_20210916T055641_20210916T060011_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_20210916T060210_20210916T060801_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_20210916T060928_20210916T061743_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_0FFL_SIR_NOPM_2_20210916T062402_20210916T063440_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_20210916T064133_20210916T064353_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_20210916T065140_20210916T065736_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_20210916T065851_20210916T070531_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_20210916T070711_20210916T072247_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_20210916T074048_20210916T074241_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_20210916T074403_20210916T074714_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_20210916T074844_20210916T075112_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_20210916T075234_20210916T075545_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_20210916T080040_20210916T081506_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_20210916T081922_20210916T082758_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_20210916T083132_20210916T085301_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_20210916T090023_20210916T090030_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_20210916T093217_20210916T095450_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_20210916T100122_20210916T100559_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_20210916T101112_20210916T101316_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_20210916T101425_20210916T103835_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_20210916T110747_20210916T113302_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_20210916T114041_20210916T114635_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_20210916T115003_20210916T121018_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_20210916T121020_20210916T121554_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_20210916T123911_20210916T131213_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_20210916T131949_20210916T132507_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_20210916T133147_20210916T133339_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_20210916T140242_20210916T140648_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_20210916T141510_20210916T141546_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.

DL_OPPL_SPL_VOMUL_2.001011146308_UD0101114610_D0101 Inter-Manue Inter, IDO SOM Manue Regulation Subscrept Calls Program South South Prog	CS_OFFL_SIR_NOPM_2_20210916T141703_20210916T142752_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.
S2.001.200.0001.200.0001110000.2001 Bescher Gabry or or or noncesta S2.0011.200.000112.2001001100000.2001 Sector Gabry in Codes Advances for a SUBA, SWI and Exclusion Codes For a SUBA, SWI and SW	CS_OFFL_SIR_NOPM_2_20210916T143038_20210916T145159_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
DQL_CHTBIT_UPCHT_ZUZUPPETETSUB_ZUZUPPETESUB_ZUZUPPETESUB_ZUZUPPETESSUB_ZUZUPPETESSUB_ZUZUPPETESSUB_ZUZU	CS_OFFL_SIR_NOPM_2_20210916T145959_20210916T150406_C001		
CS. OFT., SR. NOPM.2. 32(10)11115210. 302(10)1115275.001 min. Backsatter Quarky, Color Animeer Kang, SSR, Willington Color Anime	CS_OFFL_SIR_NOPM_2_20210916T150936_20210916T151913_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Cisi, Deris, Jain, MOPM, 2. 202100161158302, 202100161158302, 202100161158302, 202100161158304, 2021001611158304, 2021001611573031, 202100161158304, 2021001611753031, 202100161158304, 2021001611753031, 2021001611573031, 2021001611573031, 20210016118775331, 2001 Cist Anther Kango, SB40, SV/H and Backacater Caster, Finge Backacater Caster, Fi	CS_OFFL_SIR_NOPM_2_20210916T152101_20210916T152715_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CSL_DIFL_SR_NOPM_2_30216916T163548_J202191611715314_J20219916T163548_J202191611715314_J20219916T163548_J202191611715314_J20219916T163528_J2021	CS_OFFL_SIR_NOPM_2_20210916T152852_20210916T153335_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
LSL DNE_LSR_NOPM_2_120210116T163037_20210116T163037_202101 Besisseline Guainy Besisseline Guainy Besisseline Guainy Besisseline Guainy CS_OPT_SR_NOPM_2_20210016T163037_20210116T163037_20210 COCIO Almorer Range Cuality COCIO The COCOA Almorer Range Cuality COCIO The COCOA Almorer Range Cuality COCIO CS_OPT_SR_NOPM_2_20210016T163037_20210016T175301_COCII COCIO Almorer Range Cuality Cuclion The COCOA Almorer Range, SBM, SWM The COCOA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_20210016T176402_20210016T17531_COCII COCIA Almorer Range, SBM, SWM The COCOA Almorer Range, SBM, SWM The COCIA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_20210016T176402_20210016T17531_COCII COCIA Almorer Range, SBM, SWM The CocinA Almorer Range, SBM, SWM The CocinA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_20210016T175511_202101 COCIA Almorer Range, SBM, SWM The CocinA Almorer Range, SBM, SWM The CocinA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_20210016T176514_2021016T1716200_COCII COCIA Almorer Range Cuality, COCI The CocinA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_2021016T181202_2021016T181202_COCII COCIA Almorer Range Cuality, COCII The CocinA Almorer Range, SBM, SWM CS_OPT_SR_NOPM_2_2021016T181202_2021016T181202_COCII COCIA Almorer Range Cuality, COCII The CocinA AlmorerAlmage Almore Range, SBM, SWM <tr< td=""><td>CS_OFFL_SIR_NOPM_2_20210916T155545_20210916T163020_C001</td><td>and Backscatter Quality, OCOG Altimeter</td><td>and the OCOG Altimeter Range and Backscatter Quality Flags have been</td></tr<>	CS_OFFL_SIR_NOPM_2_20210916T155545_20210916T163020_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Biology Conf., DRPL, DRPL, DLR, DRPTE 19839 - LURL (DRPTE 19839 - LURL DRPTE 1983) - LURL DRPTE 19839 -	CS_OFFL_SIR_NOPM_2_20210916T163338_20210916T163851_C001		
CSLOPTLESR_NOPML2_0210916116482_202109161170202_0001 Backcoater Quality Tor one or more records. CSLOPTLESR_NOPML2_0210916116482_202109161170202_0001 Comma Altereder Range, SSHA, SWH and Backcoater Quality Flags have been attor are or more records. The OCOM Altereder Range and Backcoater Quality Flags have been attor are or more records. CSLOPTL_SR_NOPML2_002109161170514_002109161170501_0001 Range and Backcoater Quality. The OCOM Altereder Range and Backcoater Quality Flags have been attor are or more records. CSLOPTL_SR_NOPML2_002109161170514_002109161181700_0001 Rode Altereder Range, SSHA, SWH and Backcoater Quality Flags have been attor are or more records. CSLOPTL_SR_NOPML2_002109161118120_001001 Rode Altereder Range Quality. The OCOM Altereder Range and Backcoater Quality Flags have been attor are or more records. CSLOPTL_SR_NOPML2_002109161118120_001001 Rode Altereder Range, SSHA, SWH and Backcoater Quality Flags have been attor are or more records. CSLOPTL_SR_NOPML2_002109161118120_00101 COCO Altereder Range Quality. The OCOO Altereder Range and Backcoater Quality Flags have been attor and backcoater Quality. CSLOPTL_SR_NOPML2_002109161118120_0011 Cocean Altereder Range, SSHA, SWH and Backcoater Quality Flags have been attor and backcoater Quality. CSLOPTL_SR_NOPML2_002109161118128_00201 Cocean Altereder Range, SSHA, SWH and Backcoater Quality Flags have been attor and backcoater Quality. CSLOPTL_SR_NOPML2_002109161118128_00201 <td>CS_OFFL_SIR_NOPM_2_20210916T163857_20210916T163903_C001</td> <td></td> <td></td>	CS_OFFL_SIR_NOPM_2_20210916T163857_20210916T163903_C001		
CS_OFFL_SR_NOPM_2.20210916T162452_20210916T172027_C001 and Backscatter Quality and Backscatter Quality The Ocean Attender Range, SSH, SWH, The Ocean Attender Range, SSH, SWH, The Ocean Attender Range, SSH, SWH and Backscatter Quality Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for near near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH and Backscatter Quality, Flags have been set for one near the COCC Attender Range, SSH, SWH a	CS_OFFL_SIR_NOPM_2_20210916T163911_20210916T164202_C001		
CB: OFTL_SIR_NOPM_2_20210916T173414_Z0210916T175331_C001 and tackacater Quality, CCCO Almeter Range and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T178514_20210916T191000_C001 Cean Almeter Range SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T181240_20210916T181700_C001 Cocan Almeter Range Quality, CCCO Almeter Range and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T181240_20210916T181700_C001 CCCO Almeter Range Quality, CCCO Almeter Range and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T182700_2010 CCCO Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T182700_2010 Cean Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T182700_2001 Cean Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T19250_20101 Cean Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T19250_20210916T19250_C001 Cean Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records. CB: OFTL_SIR_NOPM_2_20210916T19250_201016T19457C001 Cean Almeter Range, SIM, SVM and Backacater Quality, Flags have been set for one or more records.	CS_OFFL_SIR_NOPM_2_20210916T164952_20210916T172027_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T192541_20210916T191000_C001 and Backscatter Quality COGG Altimeter and the codds. CS_OFFL_SIR_NOPM_2_20210916T191246_20210916T191750_C001 COCG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T192760_20210916T193730_C001 COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T192760_20210916T193730_C001 CocGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T192760_20210916T193730_C001 CocGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T192760_20210916T193730_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Range and Backscatter Quality. COCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been records. CS_OFFL_SIR_NOPM_2_20210916T192567_20210916T192567_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been records. CS_OFFL_SIR_NOPM_2_20210916T1933515_20210916T193356_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T1933515_20210916T194857_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T193515_20210916T194857_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have bee	CS_OFFL_SIR_NOPM_2_20210916T173414_20210916T175331_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CBJ DFFL_SIR_NOPM_2_20210916T181240_20210916T183730_0001 Backscatter Quality for one or more records. CS_OFFL_SIR_NOPM_2_20210916T182720_20210916T183730_0001 Coean Atimater Range, SSHA, SWH mare Backscatter Quality Coean Atimater Range, SSHA, SWH and backscatter Quality Coean Atimater Range, SSHA, SWH and backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T184349_20210916T185945_0001 Coean Atimater Range, SSHA, SWH and Backscatter Quality Flags have been CS_OFFL_SIR_NOPM_2_20210916T191253_20210916T192907_0001 Coean Atimater Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T192012_2010916T192012_2010916T202727_0001 Ocoan Atimater Range, SSHA, SWH and Backsc	CS_OFFL_SIR_NOPM_2_20210916T175514_20210916T181000_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T182720_20210916T182730_C001 and Backscater Quality CCG Altmeter Range and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T182449_20210916T185445_C001 Cean Altmeter Range, SSHA, SWH and Backscater Quality CCG Altmeter Range and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T191253_20210916T19207_C001 Coean Altmeter Range, SSHA, SWH and Backscater Quality CCG Altmeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T191205_20210916T19207_C001 Coean Altmeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T193054_20210916T193336_C001 Coean Altmeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T193054_20210916T194837_C001 Coean Altmeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 COCG Altimeter Range Quality. COCG Altimeter Range and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202727_C001 COCGA Altimeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202011_20210916T202727_C001 COCGA Altimeter Range, SSHA, SWH and Backscater Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202611_20210916T21204027_C001	CS_OFFL_SIR_NOPM_2_20210916T181246_20210916T181750_C001		
CS_OFFL_SIR_NOPM_2_20210916T18349_20210916T185945_C001 and Backscatter Quality and Backscatter Quality method COG Altimeter Range and Backscatter Quality Figs NoPM_2_20210916T191253_20210916T192907_C001 Decan Altimeter Range, SSHA, SWH and Backscatter Quality Figs NoPM_2_20210916T191253_20210916T192907_C001 Decan Altimeter Range, SSHA, SWH and Backscatter Quality Figs and the OCOG Altimeter Range and Backscatter Quality Figs NoPM_2_20210916T1933054_20210916T193335_C001 Decan Altimeter Range, SSHA, SWH and Backscatter Quality Figs and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Figs and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Figs and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Figs and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Figs and Backscatter Quality	CS_OFFL_SIR_NOPM_2_20210916T182720_20210916T183730_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T19253_20210916T192807_C001 and Backscatter Quality, CCOQ and the CCCQ Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_NOPM_2_20210916T193365_20210916T193336_C001 Cs an Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCCQ Altimeter Range and Backscatter Quality Flags have been CS_OFFL_SIR_NOPM_2_20210916T193315_20210916T194837_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T193051_20210916T194837_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 OCCQ Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NO	CS_OFFL_SIR_NOPM_2_20210916T184349_20210916T185945_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T193054_20210916T193336_C001 and Backscatter Quality and the OCCOG Altimeter Range and Backscatter Quality set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T193515_20210916T194837_C001 Ocean Altimeter Range, SSHA, SWH The Occoa Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 OCCG Altimeter Range Quality, OCCG The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T2132619_C001 Ocean Altimeter Range Quality, OCCG The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T213619_C001 Ocean Altimeter Range Quality, OCCG The Ocean Altimeter Range and Backscatter Quality Flags have be	CS_OFFL_SIR_NOPM_2_20210916T191253_20210916T192907_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T1933515_20210916T194437_C001 and Backscatter Quality and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and backscatter Quality. The OCean Altimeter Range, and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and backscatter Quality. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T213619_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backs	CS_OFFL_SIR_NOPM_2_20210916T193054_20210916T193336_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T213619_C001 OCCGA Altimeter Range Quality, OCCG The OCean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM	CS_OFFL_SIR_NOPM_2_20210916T193515_20210916T194837_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T214364_20210916T214002_C001 OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatt	CS_OFFL_SIR_NOPM_2_20210916T195201_20210916T195701_C001		
CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T213619_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T213619_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T21138_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPM_2_20210916T200504_20210916T202727_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and Backscatter Quality and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T213619_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_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T214346_20210916T221138_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been	CS_OFFL_SIR_NOPM_2_20210916T202811_20210916T204027_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_202109161213245_202109161213619_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPM_2_20210916T214346_20210916T221138_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPM_2_20210916T210640_20210916T212702_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPM_2_202109161213641_202109161214002_C001 Backscatter Quality for one or more records. Backscatter Quality Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG Altimeter and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_NOPM_2_20210916T213245_20210916T213619_C001		
CS_OFFL_SIR_NOPM_2_20210916T214346_20210916T221138_C001 and Backscatter Quality, OCOG Altimeter and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_NOPM_2_20210916T213641_20210916T214002_C001		
	CS_OFFL_SIR_NOPM_2_20210916T214346_20210916T221138_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been

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CS_OFFL_SIR_NOPM_2_20210916T222939_20210916T223004_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_20210916T223013_20210916T223234_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_20210916T224209_20210916T230655_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_20210916T231029_20210916T231534_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_20210916T232315_20210916T235639_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_20210916T004931_20210916T005105_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_20210916T073447_20210916T073659_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_20210916T133718_20210916T133722_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_20210916T154421_20210916T154524_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_20210916T185946_20210916T190246_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_20210916T210101_20210916T210437_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_20210916T042154_20210916T042258_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_20210916T061743_20210916T061957_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_20210916T205017_20210916T205138_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 (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.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20210916T004931_20210916T005105_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_20210916T025523_20210916T025845_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_20210916T032532_20210916T032902_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_20210916T050010_20210916T050115_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_20210916T050439_20210916T050742_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_20210916T050908_20210916T051104_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_20210916T054047_20210916T054206_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_20210916T063538_20210916T064133_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_20210916T072944_20210916T073043_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_20210916T073823_20210916T074048_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.

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CS_OFFL_SIR_NOPN_2_20210916T074241_20210916T074403_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_20210916T075723_20210916T080039_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_20210916T082759_20210916T082957_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_20210916T085441_20210916T085801_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_20210916T085849_20210916T090008_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_20210916T091401_20210916T091850_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_20210916T095713_20210916T095835_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_20210916T113815_20210916T114041_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_20210916T114635_20210916T114802_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_20210916T131636_20210916T131949_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_20210916T135738_20210916T135822_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_20210916T140115_20210916T140242_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_20210916T145427_20210916T145835_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_20210916T152803_20210916T152852_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_20210916T154200_20210916T154245_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_20210916T172028_20210916T172204_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_20210916T183730_20210916T183836_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_20210916T185946_20210916T190246_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_20210916T195011_20210916T195201_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_20210916T204027_20210916T204422_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_20210916T210101_20210916T210437_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_20210916T213619_20210916T213626_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_20210916T214002_20210916T214153_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_20210916T223349_20210916T223406_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_20210916T224116_20210916T224209_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_20210916T001057_20210916T001446_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_20210916T031516_20210916T031926_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_20210916T032903_20210916T033244_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_20210916T045310_20210916T050009_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_20210916T061743_20210916T061957_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_20210916T072827_20210916T072944_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_20210916T081506_20210916T081737_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_20210916T090037_20210916T090104_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_20210916T100818_20210916T101111_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_20210916T104907_20210916T105427_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_20210916T113303_20210916T113645_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_20210916T121554_20210916T121611_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_20210916T121714_20210916T121915_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_20210916T122233_20210916T122413_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_20210916T122814_20210916T123609_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_20210916T131213_20210916T131636_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_20210916T132621_20210916T133146_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_20210916T135414_20210916T135738_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_20210916T140648_20210916T141510_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_20210916T145159_20210916T145426_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_20210916T154745_20210916T155119_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_20210916T155119_20210916T155545_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_20210916T164345_20210916T164952_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_20210916T172643_20210916T173224_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_20210916T175339_20210916T175514_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_20210916T182210_20210916T182720_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_20210916T184137_20210916T184349_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_20210916T190558_20210916T190902_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_20210916T190903_20210916T191253_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_20210916T204423_20210916T204942_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_20210916T205017_20210916T205138_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_20210916T230655_20210916T230856_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:	164		
5.7 L2 Ocean Retracking Qualit	ty 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.

54

117

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.

0

Number of products with errors:

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	139	139	3	136	0
SIR_NOPR1B	89	89	0	89	0
SIR_NOPN1B	98	98	0	98	0
SIR_NOPM_2	139	139	87	52	0
SIR_NOPR_2	89	89	29	60	0
SIR_NOPN_2	98	98	40	58	0

7.1 QCC Errors

Number of QCC reports with errors:

7.2 QCC Warnings

iber of QCC repu	orts with warnings	1466	Total n	umber of occurrences of	of each warning		
Product Type	BCSHNCDF	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	RBSZOPOEPNCDF
SIR_NOPM1B	136	0	0	0	0	0	0
SIR_NOPM_2	0	35	31	2	34	0	32
SIR_NOPN1B	98	0	0	0	0	0	0
SIR_NOPN_2	0	7	27	3	21	28	19
SIR_NOPR1B	86	0	0	0	0	0	0
SIR_NOPR_2	0	28	32	0	30	27	14
						÷	•
Product Type	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARI		NCDF RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	1	28	0	0	0	0	21
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	0	19	0	28	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	0	34	0	41	0	0
				·			
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	0	5	26	0	4	29
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	24	13	38	45	24	25
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	32	0	0	51	36	5	32
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SCSTODHRNCDF	SCSTODNCDF	-	-	-
SID NODM1D	0	0	0	0			

Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SCSTODHRNCDF	SCSTODNCDF	-	-	-
SIR_NOPM1B	0	0	0	0			
SIR_NOPM_2	0	3	0	0			
SIR_NOPN1B	0	0	43	0			
SIR_NOPN_2	26	11	0	0			
SIR_NOPR1B	0	0	89	1			
SIR_NOPR_2	40	2	0	0			

Test Description Key:						
Abbreviation	Test name	Details				
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				

MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
F 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
DF 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
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0