

QA4EO Daily Report for NOP data:

<u>17/05/2023</u>

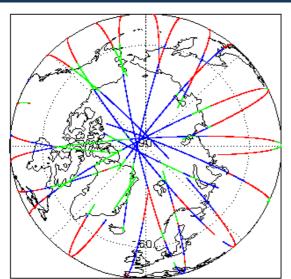
IDEAS-QA4E0

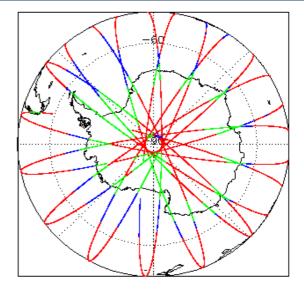
Jonant Draduation.	10 May 2000	Check	L1 & L2
Report Production:	19-May-2023	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CriveSet Oscen Breeseer	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Usea:	CryoSat Ocean Processor	Product Software Check	Nominal
	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
Data Used:	L1B & L2 Science Data	Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
We would	love to hear from you!	Auxiliary Correction Error Check	See Section 5.4
Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to		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
cs2 ac	team@telespazio.com	QCC Error/ Warning Check	See Section 7.2

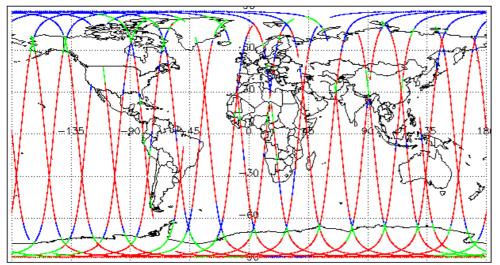
1. Overview

17-May-2023None18-May-2023Nothing planned

2. Global Coverage







Mode Coverage
LRM
SAR
SAR
SARIn

3. Instrument Configuration

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

SIRAL - A
Star Tracker 1

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 NetCDF product file (.nc).
Number of products with errors:
0

4.2 L1B Product Header Analysis				
For all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any incons	sistencies and/or errors raised by the ground-segment processing chain.		
> L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B NOPR and NOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.				
umber of products with errors: 0				
4.3 L1B Auxilary Data File Usage Check				
	e-determined baseline and also to c	hack the validity of Auvilian/Data Files is correct		
ach 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: 0				
4.4 L1B Auxiliary Correction Error Check				
CryoSat L1B data includes a correction error flag for each measurement record	d. The bit value of this flag indicates	any problems when set.		
Number of products with errors: 0				
4.5 L1B Measurement Confidence Data Check				
CryoSat L1B data includes a measurement confidence flag for each measurem	nent record. The bit value of this fla	g indicates any problems when set.		
	oducts due to a configuration issue.	The attitude correction is not actually missing, This is being investigated and will be		
updated in the next SW update. Number of products with errors: 1				
Product	Test Failed	Description		
CS_OFFL_SIR_NOPM1B_20230517T072005_20230517T072445_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records		
CryoSat L1B data includes a waveform data flag for each measurement record > Loss of Echo Flag: This flag is currently set for occasional products over la Number of products with errors: 19	-	any problems when set.		
Product				
	Test Failed	Description		
CS OFFL SIR NOPM1B 20230517T060400 20230517T060541 C001	Test Failed	Description The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T060400_20230517T060541_C001 CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001		Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T122302_20230517T123552_C001	Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T122302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T233929_20230517T235455_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T122302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T233929_20230517T235455_C001 CS_OFFL_SIR_NOPN1B_20230517T013930_20230517T014107_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T233929_20230517T235455_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T0142608_20230517T0142645_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T233929_20230517T235455_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPM1B_20230517T0142608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T1235455_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPM1B_20230517T0142608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T0192404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134830_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T035455_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T0142608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T032404_20230517T034659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134630_C001 CS_OFFL_SIR_NOPN1B_20230517T0238734_20230517T233905_C001 CS_OFFL_SIR_NOPR1B_20230517T025826_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T122302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T235455_C001 CS_OFFL_SIR_NOPM1B_20230517T013300_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134830_C001 CS_OFFL_SIR_NOPN1B_20230517T023826_20230517T03305_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T133552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T135555_C001 CS_OFFL_SIR_NOPM1B_20230517T01330_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134830_C001 CS_OFFL_SIR_NOPN1B_20230517T023826_20230517T03305_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T06713_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T06713_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T133552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T235455_C001 CS_OFFL_SIR_NOPM1B_20230517T01330_20230517T014107_C001 CS_OFFL_SIR_NOPM1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134830_C001 CS_OFFL_SIR_NOPN1B_20230517T023826_20230517T030110_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T06713_C001 CS_OFFL_SIR_NOPR1B_20230517T061122_20230517T061522_001 CS_OFFL_SIR_NOPR1B_20230517T0614245_0230517T06733_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T133552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T13555_C001 CS_OFFL_SIR_NOPM1B_20230517T01330_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T134632_20230517T134830_C001 CS_OFFL_SIR_NOPN1B_20230517T023826_20230517T030110_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T060542_20230517T060713_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T06592_C001 CS_OFFL_SIR_NOPR1B_20230517T061122_20230517T06132_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T073659_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T073640_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T123555_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T032404_20230517T032659_C001 CS_OFFL_SIR_NOPN1B_20230517T0323734_20230517T03305_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T03110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T061542_20230517T061532_C001 CS_OFFL_SIR_NOPR1B_20230517T061122_20230517T061532_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T075440_C001 CS_OFFL_SIR_NOPR1B_20230517T074610_20230517T075440_C001 CS_OFFL_SIR_NOPR1B_20230517T092700_20230517T093351_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T123555_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T032404_20230517T032659_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T03905_C001 CS_OFFL_SIR_NOPN1B_20230517T042415_20230517T030110_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T061542_20230517T061532_C001 CS_OFFL_SIR_NOPR1B_20230517T061122_20230517T073659_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T075440_C001 CS_OFFL_SIR_NOPR1B_20230517T092700_20230517T093351_C001 CS_OFFL_SIR_NOPR1B_20230517T092700_20230517T033351_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for		
CS_OFFL_SIR_NOPM1B_20230517T093701_20230517T101024_C001 CS_OFFL_SIR_NOPM1B_20230517T123302_20230517T123552_C001 CS_OFFL_SIR_NOPM1B_20230517T1233929_20230517T123555_C001 CS_OFFL_SIR_NOPM1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T013930_20230517T014107_C001 CS_OFFL_SIR_NOPN1B_20230517T042608_20230517T042645_C001 CS_OFFL_SIR_NOPN1B_20230517T092404_20230517T092659_C001 CS_OFFL_SIR_NOPN1B_20230517T032404_20230517T032659_C001 CS_OFFL_SIR_NOPN1B_20230517T0323734_20230517T03305_C001 CS_OFFL_SIR_NOPN1B_20230517T025826_20230517T031010_C001 CS_OFFL_SIR_NOPR1B_20230517T042415_20230517T042608_C001 CS_OFFL_SIR_NOPR1B_20230517T061542_20230517T061532_C001 CS_OFFL_SIR_NOPR1B_20230517T061122_20230517T061532_C001 CS_OFFL_SIR_NOPR1B_20230517T073438_20230517T075440_C001 CS_OFFL_SIR_NOPR1B_20230517T074610_20230517T075440_C001 CS_OFFL_SIR_NOPR1B_20230517T092700_20230517T093351_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		

5. NOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors:

5.2 L2 Product Header Analysis

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

Number of products with errors:

5.3 L2 Auxiliary Data File Usage Check

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

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

Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

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

0

0

0

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 Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.

> Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.

> Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.

> Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Product	Test Failed	Description
S_OFFL_SIR_NOPM_2_20230517T024032_20230517T024601_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more recor
S_OFFL_SIR_NOPM_2_20230517T055552_20230517T055622_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPM_2_20230517T161144_20230517T161222_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
S_OFFL_SIR_NOPN_2_20230517T001441_20230517T002053_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynar Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T010712_20230517T010728_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one of more records
S_OFFL_SIR_NOPN_2_20230517T011357_20230517T011501_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynar Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T025311_20230517T025809_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
S_OFFL_SIR_NOPN_2_20230517T042725_20230517T042902_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T043231_20230517T043310_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T051748_20230517T051955_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more record
S_OFFL_SIR_NOPN_2_20230517T061117_20230517T061121_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T065545_20230517T065903_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T070426_20230517T070544_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T083438_20230517T083758_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T084320_20230517T084445_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T092404_20230517T092659_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
S_OFFL_SIR_NOPN_2_20230517T102141_20230517T102316_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T110500_20230517T110600_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T115913_20230517T120121_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T123913_20230517T124119_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibriu Long Period Ocean Tide for one or more records
S_OFFL_SIR_NOPN_2_20230517T124300_20230517T124515_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T132930_20230517T133117_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T134632_20230517T134830_C001	Total Geocentric Ocean Tide (FES), Non Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide (solution 2: FE and the Non-Equilibrium Long Period Ocean Tide for one or more reco
S_OFFL_SIR_NOPN_2_20230517T141935_20230517T142343_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T142402_20230517T142459_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1) for one or more records
S_OFFL_SIR_NOPN_2_20230517T151858_20230517T152100_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T182813_20230517T182938_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one o more records
S_OFFL_SIR_NOPN_2_20230517T183726_20230517T183840_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more rec

CS_OFFL_SIR_NOPN_2_20230517T200741_20230517T200907_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_20230517T214803_20230517T215102_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_20230517T215321_20230517T215839_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_20230517T224422_20230517T224721_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records
CS_OFFL_SIR_NOPN_2_20230517T232636_20230517T233033_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_20230517T010820_20230517T010900_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_20230517T012307_20230517T012416_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_20230517T042902_20230517T043230_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_20230517T043310_20230517T043333_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_20230517T055623_20230517T055732_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_20230517T055742_20230517T055820_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_20230517T060159_20230517T060359_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_20230517T060724_20230517T061116_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_20230517T061122_20230517T061532_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_20230517T074610_20230517T075440_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_20230517T092700_20230517T093351_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_20230517T110600_20230517T111144_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_20230517T124516_20230517T125042_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_20230517T141621_20230517T141922_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_20230517T142343_20230517T142401_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_20230517T142500_20230517T142905_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_20230517T160207_20230517T161144_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_20230517T173919_20230517T174611_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: 1			
Product	Test Failed	Description	
CS_OFFL_SIR_NOPM_2_20230517T072005_20230517T072445_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records	
5.6 L2 Measurement Quality Flag Check			
L2 Quality Flags (20 Hz)			
CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz m	neasurement record. The bit value of this flag	g indicates any problems when set.	
Currently, there are several common flags raised in the Level 2 products, v	which are summarised below. The table p	rovides the full list of products flagged.	
> Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags: Thes	se flags are currently set for some records ov	ver ocean.	

> OCOG Altimeter Range and Backscatter Quality Flags: These flags are currently set for some records over continental ice.

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Number of products with errors:

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Product
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Test Failed

Description

CS_OFFL_SIR_NOPM_2_20230516T235912_20230517T001358_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_20230517T002053_20230517T002305_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_20230517T002349_20230517T002806_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_20230517T003009_20230517T004444_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_20230517T004624_20230517T004940_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_20230517T004942_20230517T010225_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_20230517T011501_20230517T011537_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_20230517T012416_20230517T013351_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_20230517T014107_20230517T015520_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_20230517T015846_20230517T020710_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_20230517T020942_20230517T023213_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_20230517T030111_20230517T030555_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_20230517T030817_20230517T033430_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_20230517T034033_20230517T034527_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_20230517T034913_20230517T035052_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_20230517T035115_20230517T041334_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_20230517T044702_20230517T051319_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_20230517T051715_20230517T051748_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_20230517T051955_20230517T052553_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_20230517T052742_20230517T054815_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_20230517T060400_20230517T060541_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_20230517T061848_20230517T065218_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_20230517T065904_20230517T070425_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_20230517T070655_20230517T071042_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_20230517T074107_20230517T074125_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_20230517T074222_20230517T074609_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_20230517T075752_20230517T083153_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_20230517T083758_20230517T083907_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_20230517T083913_20230517T084320_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_20230517T084613_20230517T085826_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_20230517T090013_20230517T090613_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_20230517T090818_20230517T091247_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_20230517T093701_20230517T101024_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_20230517T101307_20230517T101806_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_20230517T101827_20230517T102141_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_20230517T102907_20230517T110019_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_20230517T111929_20230517T113308_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_20230517T113316_20230517T114952_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_20230517T115156_20230517T115705_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_20230517T115725_20230517T115736_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_20230517T120657_20230517T122048_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_20230517T122302_20230517T123552_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_20230517T130235_20230517T131251_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_20230517T131431_20230517T132845_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_20230517T133117_20230517T133617_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_20230517T134454_20230517T134631_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_20230517T134830_20230517T135908_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_20230517T140107_20230517T140641_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_20230517T140925_20230517T141621_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_20230517T144531_20230517T150740_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_20230517T151155_20230517T151535_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_20230517T152216_20230517T154936_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_20230517T162241_20230517T164743_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_20230517T164938_20230517T165450_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_20230517T165457_20230517T165824_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_20230517T170156_20230517T173521_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_20230517T182129_20230517T182703_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_20230517T182938_20230517T183524_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_20230517T184130_20230517T191503_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_20230517T195024_20230517T195219_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_20230517T195242_20230517T200616_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_20230517T200907_20230517T201418_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_20230517T202041_20230517T205448_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_20230517T210621_20230517T210841_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_20230517T212425_20230517T214425_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_20230517T215103_20230517T215321_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_20230517T220029_20230517T223259_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_20230517T224913_20230517T230809_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_20230517T230836_20230517T232135_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_20230517T233929_20230517T235455_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_20230517T235658_20230518T000619_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_20230517T164801_20230517T164937_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_20230517T192911_20230517T192959_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_20230517T020858_20230517T020942_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_20230517T111158_20230517T111318_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_20230517T114952_20230517T115016_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_20230517T115719_20230517T115724_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_20230517T215839_20230517T220029_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (20 Hz PLRM)

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

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

> OCOG Altimeter Range and Backscatter PLRM Quality Flags: These flags are currently set for occasional records over continental ice.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20230517T001441_20230517T002053_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_20230517T002306_20230517T002349_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_20230517T013930_20230517T014107_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_20230517T025311_20230517T025809_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_20230517T033628_20230517T033725_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_20230517T034528_20230517T034750_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_20230517T041412_20230517T041552_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_20230517T051748_20230517T051955_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_20230517T061533_20230517T061847_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_20230517T065545_20230517T065903_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_20230517T073710_20230517T073740_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_20230517T075440_20230517T075752_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_20230517T084320_20230517T084445_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_20230517T090614_20230517T090818_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_20230517T092404_20230517T092659_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_20230517T110500_20230517T110600_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_20230517T115017_20230517T115155_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_20230517T115913_20230517T120121_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_20230517T120127_20230517T120249_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_20230517T124300_20230517T124515_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_20230517T125042_20230517T125219_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_20230517T134632_20230517T134830_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_20230517T135909_20230517T140106_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_20230517T141935_20230517T142343_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_20230517T150857_20230517T151154_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_20230517T151551_20230517T151556_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_20230517T151858_20230517T152100_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_20230517T155039_20230517T155337_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_20230517T162054_20230517T162202_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_20230517T165824_20230517T165937_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_20230517T165937_20230517T165950_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_20230517T173522_20230517T173919_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_20230517T182813_20230517T182938_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_20230517T183726_20230517T183840_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_20230517T191504_20230517T191821_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_20230517T194448_20230517T194632_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_20230517T201418_20230517T201433_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_20230517T214803_20230517T215102_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_20230517T215321_20230517T215839_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_20230517T224422_20230517T224721_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_20230517T233230_20230517T233407_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_20230517T233734_20230517T233905_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_20230517T010820_20230517T010900_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_20230517T011622_20230517T011814_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_20230517T012021_20230517T012123_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_20230517T012307_20230517T012416_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_20230517T013613_20230517T013930_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_20230517T025826_20230517T030110_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_20230517T030555_20230517T030816_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_20230517T042415_20230517T042608_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_20230517T042902_20230517T043230_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230517T051320_20230517T051554_C001	PLRM 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_20230517T055623_20230517T055732_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_20230517T060159_20230517T060359_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_20230517T060724_20230517T061116_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_20230517T061122_20230517T061532_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_20230517T071222_20230517T071510_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_20230517T073301_20230517T073435_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_20230517T073438_20230517T073659_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_20230517T073701_20230517T073703_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_20230517T073910_20230517T074107_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_20230517T074610_20230517T075440_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_20230517T083154_20230517T083438_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_20230517T092700_20230517T093351_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_20230517T102645_20230517T102906_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_20230517T110600_20230517T111144_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_20230517T111158_20230517T111318_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_20230517T111547_20230517T111928_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_20230517T122105_20230517T122302_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_20230517T123553_20230517T123618_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_20230517T124516_20230517T125042_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_20230517T141621_20230517T141922_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_20230517T142500_20230517T142905_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_20230517T160207_20230517T161144_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_20230517T161222_20230517T161345_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_20230517T164744_20230517T164801_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_20230517T165950_20230517T170156_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_20230517T173919_20230517T174611_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_20230517T174805_20230517T175157_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_20230517T183840_20230517T184130_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_20230517T192638_20230517T192816_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_20230517T193653_20230517T194014_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_20230517T201722_20230517T202040_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_20230517T210842_20230517T211607_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_20230517T214425_20230517T214802_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_20230517T223409_20230517T223429_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_20230517T232136_20230517T232636_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_20230517T233905_20230517T233928_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_20230517T235455_20230517T235657_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (1 Hz & 1 Hz PLRM)

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

188

146

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

Number of products with errors:

5.7 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20 Hz)

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

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

0

Number of products with errors:

65

L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors:

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	5	146	0
SIR_NOPR1B	112	112	0	112	0
SIR_NOPN1B	102	102	4	98	0
SIR_NOPM_2	151	151	98	53	0
SIR_NOPR_2	112	112	38	74	0
SIR_NOPN_2	102	102	42	60	0

7.1 QCC Errors

Number of QCC reports with errors:

7.2 QCC Warnings

Number of QCC repo	rts with warnings	1740					
		Total number of occurrences of each warning					
Product Type	BCSHNCDF	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCI	RBSZOPOEPNCDF
SIR_NOPM1B	146	0	0	0	0	0	0
SIR_NOPM_2	0	38	40	1	46	0	37
SIR_NOPN1B	98	0	0	0	0	0	0
SIR_NOPN_2	0	8	29	6	23	25	18

SIR NOPR1B	111	0	0	0	0	0	0
SIR NOPR 2	0	38	46	0	36	31	17
	-		-	-		-	
Product Type	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	29	0	0	0	0	25
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	1	0	0	28	0	30	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	1	0	48	0	56	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	27	0	4	36
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	25	19	43	50	26	27
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	46	0	4	62	37	9	40
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-	-
SIR_NOPM1B	0	0	0	0	0		
SIR_NOPM_2	0	3	0	0	0		
SIR_NOPN1B	0	0	0	45	0		
SIR_NOPN_2	26	15	1	0	0		
SIR_NOPR1B	0	0	0	112	6		
SIR NOPR 2	53	5	2	0	0		

Fest 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			
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean			
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean			
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample			
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter			
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter			

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0