

## **QA4EO Daily Report for NOP data:**

<u>17/01/2022</u>

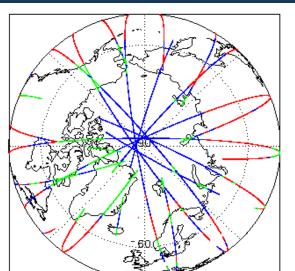
# IDEAS-QA4E0

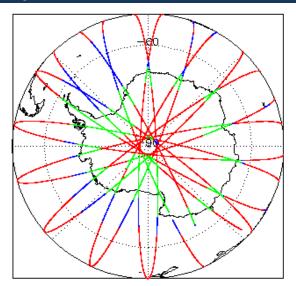
Report Production:	18-Jan-2022	Check	L1 & L2
report Froduction.	10-Jan-2022	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Useu.	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
Data Useu.	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 and 5.5
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2

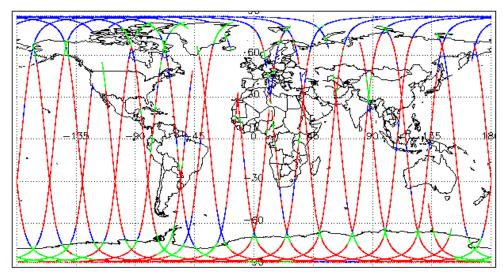
1. Overview

17-Jan-2022None18-Jan-2022Nothing planned

2. Global Coverage







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 1
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## 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).

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 11b_proc_flag_hr flag is currently set all L1B NOPR and NOPN products because the 11b_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: 0					
4.3 L1B Auxilary Data File Usage Check					
Each product is checked for missing Data Set Descriptors with respect to a pr	e-determined baseline and also to ch	neck the validity of Auxiliary Data Files is correct.			
> Dynamic Atmospheric Correction: The DAC is missing in all products bed	ause the auxiliary files required are r	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					
	ment record. The hit value of this flog	rindigates any problems when est			
	-	mucates any problems when set. 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 20220117T031606 20220117T032523 C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records			
> Loss of Echo Flag: This flag is currently set for occasional products over la	CryoSat L1B data includes a waveform data flag for each measurement record. The bit value of this flag indicates any problems when set.  > Loss of Echo Flag: This flag is currently set for occasional products over land, but this is to be expected.				
Number of products with errors: 17					
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Product	Test Failed	Description			
Product CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001	Loss of Echo	The tracking echo is missing for one or more records			
Product CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001 CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T092821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_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 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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T0184914_20220117T085322_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T0192338_20220117T092821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T06952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T099821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T0184914_20220117T015522_C001           CS_OFFL_SIR_NOPN1B_20220117T0384914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T093906_20220117T094013_C001           CS_OFFL_SIR_NOPR1B_20220117T013145_20220117T013308_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T0184914_20220117T085322_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T06525_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015522_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T093906_20220117T094013_C001           CS_OFFL_SIR_NOPR1B_20220117T013145_20220117T013308_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T06252_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T03806_20220117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T013145_20220117T013308_C001           CS_OFFL_SIR_NOPR1B_20220117T013534_20220117T013646_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T05952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T093906_20220117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T013145_20220117T013308_C001           CS_OFFL_SIR_NOPR1B_20220117T013534_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T0193731_20220117T039906_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T013145_20220117T01308_C001           CS_OFFL_SIR_NOPR1B_20220117T01334_20220117T013086_C001           CS_OFFL_SIR_NOPR1B_20220117T093731_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T094230_020220117T094635_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records         The tracking e			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T076727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T01306_2020117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T013145_20220117T013308_C001           CS_OFFL_SIR_NOPR1B_20220117T013534_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T093731_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T094230_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T01242938_20220117T054635_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T084914_20220117T085322_C001           CS_OFFL_SIR_NOPN1B_20220117T09306_2020117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T01345_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T013534_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T093731_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T094230_20220117T054435_C001           CS_OFFL_SIR_NOPR1B_20220117T124938_20220117T125147_C001           CS_OFFL_SIR_NOPR1B_20220117T194243_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T05727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T092821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T01345_20220117T094013_C001           CS_OFFL_SIR_NOPR1B_20220117T01345_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T093731_20220117T093906_C001           CS_OFFL_SIR_NOPR1B_20220117T094230_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T124938_20220117T125147_C001           CS_OFFL_SIR_NOPR1B_20220117T194243_C001           CS_OFFL_SIR_NOPR1B_20220117T194263_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			
Product           CS_OFFL_SIR_NOPM1B_20220117T015526_20220117T021121_C001           CS_OFFL_SIR_NOPM1B_20220117T062017_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T062114_C001           CS_OFFL_SIR_NOPM1B_20220117T075727_20220117T075952_C001           CS_OFFL_SIR_NOPM1B_20220117T092338_20220117T099821_C001           CS_OFFL_SIR_NOPN1B_20220117T012429_20220117T012529_C001           CS_OFFL_SIR_NOPN1B_20220117T015210_20220117T015526_C001           CS_OFFL_SIR_NOPN1B_20220117T019306_20220117T094013_C001           CS_OFFL_SIR_NOPN1B_20220117T01345_20220117T094013_C001           CS_OFFL_SIR_NOPR1B_20220117T01334_20220117T013646_C001           CS_OFFL_SIR_NOPR1B_20220117T093731_20220117T093965_C001           CS_OFFL_SIR_NOPR1B_20220117T124338_20220117T094635_C001           CS_OFFL_SIR_NOPR1B_20220117T194230_20220117T125147_C001           CS_OFFL_SIR_NOPR1B_20220117T194356_C001           CS_OFFL_SIR_NOPR1B_20220117T19429_20220117T194356_C001           CS_OFFL_SIR_NOPR1B_20220117T19420_2020117T194356_C001           CS_OFFL_SIR_NOPR1B_20220117T194300_20220117T194356_C001           CS_OFFL_SIR_NOPR1B_20220117T194300_2020117T194356_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			

#### 5.1 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. 0

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

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.

44

> 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_20220117T031336_20220117T031433_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPM_2_20220117T181353_20220117T181401_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_20220117T003025_20220117T003620_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T004337_20220117T004515_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_20220117T012429_20220117T012529_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_20220117T012933_20220117T013144_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T022246_20220117T022445_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_20220117T030846_20220117T031106_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T053303_20220117T053528_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_20220117T071124_20220117T071436_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T084914_20220117T085323_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T085854_20220117T090018_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T093906_20220117T094013_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_20220117T103650_20220117T103832_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T112032_20220117T112128_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T121441_20220117T121657_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_20220117T125432_20220117T125731_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_20220117T125830_20220117T130043_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and th Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T134458_20220117T134648_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T135336_20220117T135821_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T143513_20220117T143908_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_20220117T153450_20220117T153641_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T202316_20220117T202441_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T202951_20220117T203258_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_20220117T220400_20220117T220648_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T220855_20220117T221339_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T225947_20220117T230412_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220117T234330_20220117T234605_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220117T044352_20220117T044912_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynami Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220117T061200_20220117T061400_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_20220117T062259_20220117T063055_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_20220117T080140_20220117T081031_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_20220117T094230_20220117T094635_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_20220117T094635_20220117T095015_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_20220117T112128_20220117T112709_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_20220117T112724_20220117T112847_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_20220117T114833_20220117T115001_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_20220117T124938_20220117T125147_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPR_2_20220117T130044_20220117T130730_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_20220117T143908_20220117T144427_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_20220117T161726_20220117T162717_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_20220117T175524_20220117T180237_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_20220117T181246_20220117T181353_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_20220117T195155_20220117T195521_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height 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_20220117T031606_20220117T032523_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

### 5.6 L2 Measurement Quality Flag Check

### L2 Quality Flags (20 Hz)

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

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

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

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

88

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220116T235656_20220117T000247_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_20220117T000414_20220117T001229_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_20220117T001849_20220117T003025_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_20220117T004518_20220117T005223_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_20220117T005337_20220117T010018_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_20220117T010157_20220117T011645_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_20220117T013848_20220117T013909_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_20220117T014331_20220117T014558_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_20220117T014720_20220117T015155_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_20220117T015526_20220117T021121_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_20220117T021410_20220117T022245_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_20220117T022501_20220117T024746_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_20220117T032608_20220117T035047_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_20220117T035323_20220117T035513_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_20220117T035610_20220117T040047_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_20220117T040328_20220117T040803_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_20220117T040913_20220117T043320_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_20220117T050233_20220117T052846_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_20220117T053529_20220117T054122_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_20220117T054258_20220117T060510_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_20220117T060512_20220117T061039_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_20220117T062017_20220117T062114_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_20220117T063356_20220117T070835_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_20220117T071437_20220117T071954_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_20220117T072153_20220117T072434_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_20220117T072633_20220117T072826_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_20220117T075727_20220117T075952_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_20220117T081402_20220117T082238_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_20220117T082524_20220117T084734_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_20220117T085323_20220117T085439_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_20220117T085447_20220117T085853_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_20220117T090058_20220117T091359_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_20220117T091547_20220117T092201_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_20220117T092338_20220117T092821_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_20220117T102826_20220117T103338_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_20220117T103359_20220117T103650_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_20220117T104439_20220117T111510_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_20220117T113019_20220117T113023_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_20220117T113501_20220117T114825_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_20220117T115001_20220117T120547_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_20220117T120734_20220117T121237_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_20220117T121245_20220117T121251_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_20220117T122206_20220117T123216_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_20220117T123836_20220117T124938_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_20220117T132541_20220117T132823_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_20220117T133003_20220117T134435_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_20220117T134649_20220117T135149_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_20220117T135822_20220117T142213_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_20220117T142255_20220117T143205_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_20220117T145506_20220117T145546_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_20220117T150005_20220117T150036_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_20220117T150126_20220117T152437_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_20220117T152733_20220117T153107_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_20220117T153129_20220117T153450_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_20220117T153721_20220117T160623_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_20220117T163655_20220117T170337_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_20220117T170517_20220117T171021_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_20220117T171746_20220117T175125_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_20220117T181403_20220117T181908_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_20220117T183706_20220117T184311_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_20220117T184516_20220117T185055_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
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CB, DFL, SRU, NOM, 2, 2020117119002, 2020117119002, 2020117119002, 2020117119002, 2020117119002, 2020117119002, 2020117120209, 2020       Intel Stateward Party, SRU, Nom, 2, 2020117120209, 2020117120209, 2020       Cole Adhere Rang, SRU, Nom, 2, 2020117120209, 2020117120209, 2020         CB, DFL, SRU, NOM, 2, 2020117120209, 2020117120209, 2020       Cole Adhere Rang, SRU, Nom, 2, 2020117120209, 2020117120209, 2020       Cole Adhere Rang, SRU, Nom, 2, 2020117120209, 2020117120209, 2020         CB, DFL, SRU, NOM, 2, 2020117120209, 2020117120209, 2020       Cole Adhere Rang, SRU, Nom, 2, 2020117120209, 2020       Cole Adhere Rang, SRU, Nom, 2, 2020117120209, 2020117120209, 2020         CB, DFL, SRU, NOM, 2, 2020117120209, 2020117120209, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120209, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120307, 2020117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 200117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 200117120309, 2001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 2000117120309, 200117120309, 20001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 2000117120309, 20001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 2000117120309, 20001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 2000117120309, 20001       Cole Adhere Rang, SRU, Nom, 2, 2020117120309, 2020117120309, 2020117120309, 20001       Cole Adhere Rang, SRU, Nom, 2, 202	CS_OFFL_SIR_NOPM_2_20220117T185206_20220117T185257_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
mit	CS_OFFL_SIR_NOPM_2_20220117T185657_20220117T193002_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CBOFF_LBR_NOPM_2_000011770005_03220117700055_03220117700055_0001       and the descared Quilty_CODO       and the descared Quilty_CODO         CBOFF_LBR_NOPM_2_0020117700055_032201177100557_030201       CODO Attinue Facy_Builty_CODO       The Codo Attinue Facy_Builty_CODO         CBOFF_LBR_NOPM_2_0020117700557_03020117720565       CODO Attinue Facy_Builty_CODO       The Codo Attinue Facy_Builty_CODO         CBOFF_LBR_NOPM_2_0020117700557_03020117720562       CODO Attinue Facy_Builty_CODO       The Codo Attinue Facy_Builty_CODO         CBOFF_LBR_NOPM_2_0020117720562_03220117720562       CODO Attinue Facy_Builty_CODO       The Codo Attinue Facy_Builty_CODO         CBOFF_LBR_NOPM_2_0020117720562_03220117720562_00201       Code Attinue Facy_Builty_CDDO       The Codo Attinue Facy_Builty_CDDO         CBOFF_LBR_NOPM_2_0020117720562_03220117720562_00201       Code Attinue Facy_Builty_CDDO       The Code Attinue Facy_Builty_CDDO         CBOFF_LBR_NOPM_2_0020117720562_03220117720562_00200117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_0020117720562_00200117720562_00200117720562_00200117720562_00200117720562_00200117720562_00200117720562_00200117720562_002001177205662_002001177205662_002000117720566_002000117720566_0020001	CS_OFFL_SIR_NOPM_2_20220117T194357_20220117T194451_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
Die Unit Sint, North, 2. 20201117120402, 2020117700422, 2020117700422, 20	CS_OFFL_SIR_NOPM_2_20220117T200325_20220117T202236_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS     OFFL_SR_NOPM_2_20220117720352_2022117721055_C001     and Backsatter Quality, COOG Ammere Range, SDH, SOHT Ammere Range and Backsatter Quality, COOG Ammere Range, SDH, SOHT Ammere Range, SDH, SOHT AMMERE RANGE R	CS_OFFL_SIR_NOPM_2_20220117T202441_20220117T202950_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
Citl, DFL_SR_NOPM_2.20220117721519_0001       micl Backscatter Cuality, COCG Amonter Range and Backscatter Cuality and rank or micles could and regiment counter Range. SNN, SNN micles Range and Backscatter Cuality. Filter and Cock Conf. SRN, NOPM_2.202201177225152, 202201177255154, 202201177255154, 202201177255154, 202201177255154, 202201177255154, 202201177255154, 202201177255150, 202201177255254, 2022011777255254, 2022011777255254, 202201177255254, 202201177255254, 2022	CS_OFFL_SIR_NOPM_2_20220117T203527_20220117T210955_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SR_NOPM_2_202201177224616_202201177224616_2020     and Backscatter Ouality CGG	CS_OFFL_SIR_NOPM_2_20220117T213942_20220117T215719_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_202201171232462_02201171233760_C001       and Baskasattro Coality, COCG         CS_OFFL_SIR_NOPM_2_202201171232428_02201171233760_C001       Decem Altrender Range Gaskasattro Coality, Flage New Beer Range Gaskasattro Coality	CS_OFFL_SIR_NOPM_2_20220117T221558_20220117T224515_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_202201177234409_202201177234400_202201177234400_20201       And Backscatter Quality, COCG Backscatter Quality, COCG Backscatter Quality, COCG Backscatter Quality, COCG Altimoter Range and Backscatter Quality, Flags have been at for one or more records       The OCGG Altimeter Range and Backscatter Quality, Flags have been at for one or more records         CS_OFFL_SIR_NOPM_2_202201177234400_202201177234400_20201       DCGG Altimeter Range Quality, COCG Altimoter Range and Backscatter Quality, Flags have been at for one or more records       The OCGG Altimeter Range, SINA, SWH and Backscatter Quality, COCG Altimoter Range and Backscatter Quality, Flags have been at for one or more records         CS_OFFL_SIR_NOPM_2_20220117703450_20220117703450_0001       DCGG Altimeter Range Quality, COCG Altimoter Range Quality, COCG Backscatter Quality, COCG Backscatter Quality, COCG       The OCGG Altimeter Range and Backscatter Quality, Flags have been at for one or more records         CS_OFFL_SIR_NOPM_2_20220117703450_20220117702450_2	CS_OFFL_SIR_NOPM_2_20220117T230452_20220117T232306_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
Des_DPFL_SR_NOPM_2_0020117123400_0020117113400_00001     Badkscatter Quality     for one or more records       CS_OFFL_SIR_NOPM_2_0220117T035450_00220118T001026_0001     Attender Range, SSHA, SWH and Backscatter Quality     The Ocean Attender Range and Backscatter Quality Flags have been and backscatter Quality       CS_OFFL_SIR_NOPM_2_00220117T014588_00220117T014720_0001     Coenn Attender Range Cality, OCOG Attender Range Cality, OCOG     The Ocean Attender Range and Backscatter Quality Flags have been and for one or more records       CS_OFFL_SIR_NOPM_2_00220117T034087_00220117T035206_0001     OCOG Attender Range Cality, OCOG     The OCOG Attender Range and Backscatter Quality Flags have been se for one or more records       CS_OFFL_SIR_NOPM_2_00220117T083055_00220117T083204_C001     OCOG Attender Range Quality, OCOG     The OCOG Attender Range and Backscatter Quality Flags have been se for one or more records       CS_OFFL_SIR_NOPM_2_00220117T081032_00200117T142255_0010     OCEG Attender Range, SHA, SWH and Backscatter Quality     The OCean Attender Range and Backscatter Quality Flags have been for one or more records       CS_OFFL_SIR_NOPM_2_00220117T142213_0020117T142255_0001     OCean Attender Range, SHA, SWH and Backscatter Quality     The Ocean Attender Range and Backscatter Quality Flags have been and the OCOG Attender Range and Backscatter Quality Flags have been and the OCOG Attender Range and Backscatter Quality Flags and the OCOG Attender Range and Backscatter Quality Flags have been and the OCOG Attender Range and Backscatter Quality Flags and the OCOG Att	CS_OFFL_SIR_NOPM_2_20220117T232425_20220117T233746_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_2020117T23546_20220117T014720_0001       and Backscatter Quality, COCG Allimeter Range and Backscatter Quality Flags have been and for one or more records         CS_OFFL_SIR_NOPN_2_20220117T014558_20220117T014720_0001       Ocean Attimeter Range, SSHA, SWH and Backscatter Quality, COCG Allimeter Range and Backscatter Quality, Flags and Backscatter Quality, COCG Allimeter Range and Backscatter Quality, Flags have been active or or more records         CS_OFFL_SIR_NOPN_2_20220117T024827_20220117T025240_0001       OCOG Allimeter Range Quality, OCOG Backscatter Quality, COCG Allimeter Range Quality, OCOG Allimeter Range and Backscatter Quality, Flags have been se for one or more records         CS_OFFL_SIR_NOPN_2_20220117T068105_20220117T068105_0001       OCOG Allimeter Range Quality, OCOG Allimeter Range and Backscatter Quality, Flags have been se for one or more records         CS_OFFL_SIR_NOPN_2_20220117T081002_0220117T081052_0001       Ocean Allimeter Range, SSHA, SWH and Backscatter Quality, OCOG Allimeter Range and Backscatter Quality, Flags have been action or or more records         CS_OFFL_SIR_NOPN_2_20220117T162102_0220117T162103_0020117T162103_0001       Ocean Allimeter Range, SSHA, SWH and Backscatter Quality, COCG Allimeter Range and Backscatter Quality, Flags have been action or or more records         CS_OFFL_SIR_NOPN_2_20220117T162017T152733_C001       Ocean Allimeter Range, SSHA, SWH and Backscatter Quality, Flags have been Allimeter Range and Backscatter Quality, Flags have been Allimeter Range and Backscatter Quality, Flags have been Allimeter Range and Backscatter Quality, Flags have been Allimeter Range and Back	CS_OFFL_SIR_NOPM_2_20220117T234606_20220117T234804_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_202201171014558_202201171025246_0001       and Backscatter Quality. CCG Altimeter Range and Backscatter Quality. CCG Backscatter Quality. CCG Altimeter Range. SHA, SWH and Backscatter Quality. Flags have been se for one or more records.         CS_OFFL_SIR_NOPN_2_20220117T181032_20220117T142215_C001       OCGA Altimeter Range. SHA, SWH and Backscatter Quality. CCG Altimeter Range. SHA, SWH and Backscatter Quality. Flags have been se for one or more records.         CS_OFFL_SIR_NOPN_2_20220117T142213_20220117T142255_C001       Ocean Altimeter Range. SHA, SWH and Backscatter Quality. CCG Altimeter Range. SHA, SWH and Backscatter Quality. CCG Altimeter Range. SHA, SWH and Backscatter Quality. Flags have been se for one or more records.         CS_OFFL_SIR_NOPN_2_20220117T152450_20220117T152450_20220117T153451_C001       Ocean Altimeter Range. SHA, SWH and Backscatter Quality. CCG Altimeter Range and Backscatter Quality. Flags have been se for one or more records.         CS_OFFL_SIR_NOPN_2_20220117T15450_20220117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C0020117T154540_C	CS_OFFL_SIR_NOPM_2_20220117T235450_20220118T001026_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_a02201171083055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20220117T063055_20001         OCcog Altimeter Range Quality, OCCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been se for one or more records           CS_OFFL_SIR_NOPN_2_20220117T061032_20220117T16255_2001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been se for one or more records           CS_OFFL_SIR_NOPN_2_20220117T162501_20220117T152733_C001         Ocean Altimeter Range, SSHA, SWH addscatter Quality, OCCG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been se for one or more records           CS_OFFL_SIR_NOPN_2_20220117T152501_20220117T152733_C001         OCeGA Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range, SSHA, SWH addscatter Quality, OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been se for one or more records           CS_OFFL_SIR_NOPN_2_20220117T152601_20220117T15264_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been Altimeter Range and Backscatter Quality, Flags have been Altimeter Range and Backscatter Quality, Flags have been Altimeter Range and Backscatter Quality Flags have been se Backscatter Quality	CS_OFFL_SIR_NOPN_2_20220117T014558_20220117T014720_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117108305_0020011         Backscatter Quality         for one or more records           CS_OFFL_SIR_NOPN_2_20220117T081032_20220117T081052_0001         Dcean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COCG         The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range, and Backscatter Quality, Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, COCG         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COCG           CS_OFFL_SIR_NOPN_2_20220117T142213_20220117T142255_0001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG         The Ocean Altimeter Range, and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been se for one or more records           CS_OFFL_SIR_NOPN_2_20220117T152501_20220117T152641_0001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG         The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG         The OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG         The Ocean Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Ba	CS_OFFL_SIR_NOPN_2_20220117T024927_20220117T025246_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117T081032_20220117T1081052_C001       and Backscatter Quality COGG         Allimeter Range and Backscatter Quality, CCOG       and the CCCGA Allimeter Range and Backscatter Quality Flags have been and the OCGA Allimeter Range and Backscatter Quality, CCOG         CS_OFFL_SIR_NOPN_2_20220117T142213_20220117T142255_C001       Cecan Allimeter Range and Backscatter Quality, CCOG         CS_OFFL_SIR_NOPN_2_20220117T152501_20220117T1525733_C001       OCGA Allimeter Range Quality, OCGG       The OCGA Allimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPN_2_20220117T15361_20220117T153641_C001       Ocean Allimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Ocean Allimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Ocean Allimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T194207_20220117T194228_C001       Ocean Allimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T194207_20220117T194228_C001       Ocean Allimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T1194207_20220117T1194205_C001       Ocean Allimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T1	CS_OFFL_SIR_NOPN_2_20220117T063055_20220117T063204_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117T142213_20220117T142255_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flags have been         CS_OFFL_SIR_NOPN_2_20220117T152501_20220117T152733_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_NOPN_2_20220117T15360_20220117T153641_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH         CS_OFFL_SIR_NOPN_2_20220117T153450_20220117T153641_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, COCG Altimeter Range and Backscatter Quality, COCG Altimeter Range and Backscatter Quality, Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T100247_20220117T1000414_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113204_20220117T113405_C001       OCCOG Altimeter Range Quality, OCOG Backscatter Quality       The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113405_C001       OCO	CS_OFFL_SIR_NOPN_2_20220117T081032_20220117T081052_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117T152601_20220117T153641_C001       Backscatter Quality       For one or more records         CS_OFFL_SIR_NOPN_2_20220117T153450_20220117T153641_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_NOPN_2_20220117T153450_20220117T153641_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality         CS_OFFL_SIR_NOPR_2_20220117T1000247_20220117T1000414_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113204_20220117T113405_C001       OCC0G Altimeter Range Quality, OCOG Backscatter Quality       The OCC0G Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113405_C001       OCC0G Altimeter Range Quality, OCC0G Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113405_C001       OCC0G Altimeter Range Quality, OCC0G Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113405_C001       OC	CS_OFFL_SIR_NOPN_2_20220117T142213_20220117T142255_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117T153450_20220117T153641_C001       and Backscatter Quality, COCG       and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       Coean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been and Backscatter Quality, COCG       The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been and Backscatter Quality, COCG         CS_OFFL_SIR_NOPR_2_20220117T1000247_20220117T1000414_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113204_20220117T113405_C001       Ocean Altimeter Range Quality, OCCG       The OCGG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113405_C001       OCCG Altimeter Range Quality, OCCG       The OCGG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113405_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_NOPR_2_20220117T113409_20220117T113405_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_NOPR_2_20220117T113409_20220117T113405_C001       OCCG Altimeter Range, SSHA, SWH       The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220	CS_OFFL_SIR_NOPN_2_20220117T152501_20220117T152733_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001       and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality       and the OCOG Attimeter Range and Backscatter Quality flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T000247_20220117T000414_C001       Ocean Attimeter Range, SSHA, SWH and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality, OCOG       The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags have been and the OCOG Attimeter Range and Backscatter Quality Flags have been and the OCOG Attimeter Range and Backscatter Quality Flags have been and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113204_20220117T113405_C001       OCOG Attimeter Range Quality, OCOG Backscatter Quality       The OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113405_C001       OCOG Attimeter Range Quality, OCOG Backscatter Quality       The OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113405_C001       OCOG Attimeter Range, SSHA, SWH and Backscatter Quality, OCOG Attimeter Range, SSHA, SWH       The OCOG Attimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records         CS_OFFL_SIR_NOPR_2_20220117T125830_2020117T125830_C001       Ocean Attimeter Range, SSHA, SWH and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records       The Ocean Attimeter Range, SSHA, SWH and the OCOG Attimeter Range, SSHA, SWH and Backscatter Quality Flags set	CS_OFFL_SIR_NOPN_2_20220117T153450_20220117T153641_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220117T000247_20220117T000414_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_NOPR_2_20220117T113204_20220117T113405_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_20220117T113409_20220117T113405_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_20220117T113409_20220117T113426_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_20220117T125830_20220117T125830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_NOPN_2_20220117T194207_20220117T194228_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220117113204_20220117113405_C001       Backscatter Quality       for one or more records         CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113426_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flags have been see for one or more records         CS_OFFL_SIR_NOPR_2_20220117T1125830_20220117T1125830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been see for one or more records         CS_OFFL_SIR_NOPR_2_20220117T125830_20220117T125830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been see for one or more records         Ocean Altimeter Range and Backscatter Quality, OCOG       The Ocean Altimeter Range and Backscatter Quality Flags have been see for one or more records         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been see for one or more records	CS_OFFL_SIR_NOPR_2_20220117T000247_20220117T000414_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220117113409_20220117113426_C001       Backscatter Quality       for one or more records         CS_OFFL_SIR_NOPR_2_20220117T125830_20220117T125830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Mitmeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range and Backscatter Quality Flags set for one or more records	CS_OFFL_SIR_NOPR_2_20220117T113204_20220117T113405_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220117T125830_20220117T125830_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality set for one or more records         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_NOPR_2_20220117T113409_20220117T113426_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
	CS_OFFL_SIR_NOPR_2_20220117T125830_20220117T125830_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220117T195155_20220117T195521_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records	CS_OFFL_SIR_NOPR_2_20220117T195155_20220117T195521_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
	CS_OFFL_SIR_NOPR_2_20220117T203259_20220117T203526_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

### L2 Quality Flags (20 Hz PLRM)

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

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

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

Number of products with errors: 72

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20220117T012429_20220117T012529_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_20220117T012933_20220117T013144_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_20220117T013309_20220117T013534_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_20220117T013727_20220117T013848_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_20220117T015210_20220117T015526_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_20220117T021225_20220117T021409_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_20220117T024927_20220117T025246_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_20220117T025335_20220117T025453_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_20220117T030846_20220117T031106_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_20220117T044331_20220117T044352_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_20220117T053303_20220117T053528_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_20220117T063055_20220117T063204_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_20220117T071124_20220117T071436_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_20220117T073851_20220117T073928_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_20220117T075600_20220117T075727_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_20220117T085854_20220117T090018_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_20220117T092202_20220117T092227_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_20220117T112032_20220117T112128_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_20220117T120551_20220117T120733_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_20220117T121441_20220117T121657_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_20220117T123217_20220117T123322_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_20220117T125432_20220117T125731_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_20220117T125830_20220117T130043_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_20220117T134458_20220117T134648_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_20220117T144428_20220117T144502_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_20220117T145547_20220117T145923_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_20220117T152501_20220117T152733_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_20220117T160624_20220117T161131_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_20220117T182412_20220117T182607_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_20220117T184403_20220117T184516_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_20220117T185257_20220117T185412_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_20220117T194451_20220117T194557_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_20220117T225947_20220117T230412_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_20220117T234330_20220117T234605_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_20220117T001230_20220117T001444_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_20220117T011744_20220117T011817_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_20220117T012250_20220117T012315_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_20220117T012344_20220117T012429_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_20220117T013145_20220117T013308_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_20220117T013909_20220117T014004_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_20220117T035047_20220117T035200_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_20220117T040306_20220117T040328_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_20220117T044352_20220117T044912_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_20220117T052847_20220117T053132_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_20220117T061200_20220117T061400_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_20220117T062115_20220117T062233_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_20220117T062259_20220117T063055_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_20220117T080140_20220117T081031_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_20220117T084735_20220117T084914_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_20220117T094230_20220117T094635_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_20220117T094635_20220117T095015_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_20220117T095129_20220117T095332_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_20220117T112128_20220117T112709_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_20220117T120547_20220117T120551_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_20220117T121657_20220117T122206_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_20220117T123623_20220117T123835_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_20220117T124938_20220117T125147_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_20220117T125732_20220117T125830_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_20220117T130044_20220117T130730_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_20220117T143205_20220117T143433_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_20220117T143908_20220117T144427_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_20220117T150037_20220117T150126_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_20220117T161726_20220117T162717_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_20220117T175524_20220117T180237_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_20220117T180302_20220117T180747_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_20220117T181246_20220117T181353_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_20220117T183302_20220117T183705_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_20220117T185413_20220117T185656_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_20220117T194300_20220117T194356_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_20220117T215719_20220117T220359_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_20220117T230413_20220117T230451_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_20220117T233747_20220117T234329_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
12 Quality Flame (4.1) & 4.11 DI DM		

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

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

182

> 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:

#### 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.

8

1707

62

134

Number of products with errors:

#### L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors:

## 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	178	178	9	169	0
SIR_NOPR1B	123	123	1	122	0
SIR_NOPN1B	106	106	3	103	0
SIR_NOPM_2	178	178	126	52	0
SIR_NOPR_2	123	123	45	73	5
SIR_NOPN_2	106	106	40	66	0

## 7.1 QCC Errors

#### Number of QCC reports with errors:

Total number of occurrences of each error											
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_NOPR_2	5	5	5	5							

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

## 7.2 QCC Warnings

#### Number of QCC reports with warnings

Total number of occurrences of each warning							
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_NOPM1B	169	0	0	0	0	0	0
SIR_NOPM_2	0	0	44	41	1	37	0
SIR_NOPN1B	102	0	0	0	0	0	0
SIR_NOPN_2	0	0	9	36	3	28	27
SIR_NOPR1B	118	0	0	0	0	0	0
SIR_NOPR_2	0	5	23	42	1	26	20
Product Type	RBSZOPOEPNCDF	RLPTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO		RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	34	0	30	0	0	0	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	16	11	0	0	21	0	34
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	9	5	0	44	0	48	0
Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	22	0	0	8	27	0	5
SIR_NOPN1B	0						
		0	0	0	0	0	0
SIR_NOPN_2	0	0	27	0 18	0 38	52	0 29
SIR_NOPR1B	0 0	0 0 0	0	0 18 0	0	52 0	0
	0	0 0 0 43	0 27 0 0	0 18 0 4		52	0 29 0 9
SIR_NOPR1B SIR_NOPR_2	0 0 0		0 0	0 4	0 59	52 0 24	0 9
SIR_NOPR1B SIR_NOPR_2 Product Type	0 0 0 RSWHOEPFDNCDF	0 0 43 RSWHOEPFDPLRMNCDF	0 0	0 18 0 4 SPHRTASCNSNCDF	0	52 0	0
SIR_NOPR1B SIR_NOPR_2 Product Type SIR_NOPM1B	0 0 0 <b>RSWHOEPFDNCDF</b> 0		0 0	0 4	0 59	52 0 24 SCSTODHRNCDF 0	0 9
SIR_NOPR1B SIR_NOPR_2 Product Type SIR_NOPM1B SIR_NOPM_2	0 0 0 <b>RSWHOEPFDNCDF</b> 0 35		0 0	0 4	0 59	52 0 24 SCSTODHRNCDF 0 0	0 9
SIR_NOPR1B SIR_NOPR_2 Product Type SIR_NOPM1B SIR_NOPM_2 SIR_NOPN1B	0 0 0 <b>RSWHOEPFDNCDF</b> 0 35 0	RSWHOEPFDPLRMNCDF 0 0 0	0 0	0 4	0 59	52 0 24 SCSTODHRNCDF 0 0 44	0 9
SIR_NOPR1B SIR_NOPR_2 SIR_NOPM1B SIR_NOPM_2 SIR_NOPM_2 SIR_NOPN1B SIR_NOPN_2	0 0 0 <b>RSWHOEPFDNCDF</b> 0 35 0 27		0 0	0 4	0 59	52 0 24 SCSTODHRNCDF 0 0 44 0	0 9 SCSTODNCDF 0 0 0 0 0
SIR_NOPR1B SIR_NOPR_2 Product Type SIR_NOPM1B SIR_NOPM_2 SIR_NOPN1B	0 0 0 <b>RSWHOEPFDNCDF</b> 0 35 0	RSWHOEPFDPLRMNCDF 0 0 0	0 0	0 4	0 59	52 0 24 SCSTODHRNCDF 0 0 44	0 9

Test Description Key:						
Abbreviation	Test name	Details				
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter				
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only				
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RLPTONCDF	RangeLongPeriodTideOceanNetCDF	The Long period tide height should be between -50mm and 50mm (or missing) for surface type = ocean - NetCDF				
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
	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)
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