

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

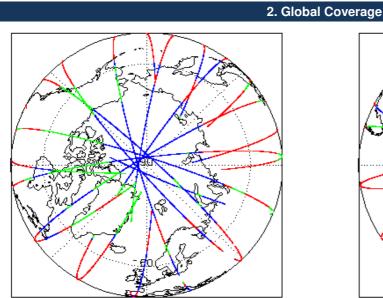
<u>22/02/2022</u>

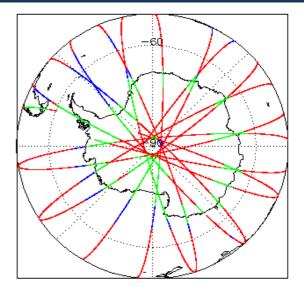
## IDEAS-QA4E0

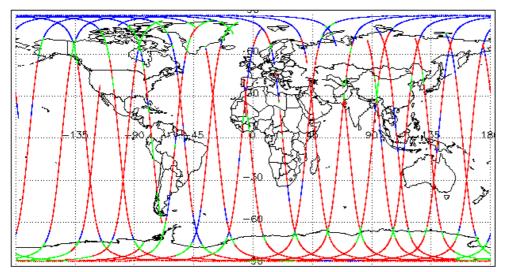
Demant Due de stieres	00 E-k 0000	Check	L1 & L2
Report Production:	23-Feb-2022	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSal Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
Data Used:	L1B & L2 Science Data	Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
		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

Mission / Instru	Mission / Instrument News		
21-Feb-2022	None		
22-Feb-2022	SIRAL Unavailability due to Orbit Control Manoeuvre on 22/02/2022 16:36:28 – 18:44:37 UTC		
23-Feb-2022	Nothing planned		









### 3. Instrument Configuration

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

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

4. NOP Level 1B Data Quality Check

#### 4.1 L1B Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).
Number of products with errors:
0

4.2 L1B Product Header Analysis				
For all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any inconsi	stencies and/or errors raised by the ground-segment processing chain.		
L1B Processing Quality HR: The l1b_proc_flag_hr flag is currently set all L OSARIn chains. A modification is required in the next release.	1B NOPR and NOPN products beca	use the I1b_processing_quality_hr field is not correctly configured in the OSAR and		
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 pro-	e-determined baseline and also to ch	eck the validity of Auxiliary Data Files is correct.		
> Dynamic Atmospheric Correction: The DAC is missing in all products bec	ause the auxiliary files required are n	ot 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 recor	d. The bit value of this flag indicates	any problems when set.		
Number of products with errors: 0				
4.5 L1B Measurement Confidence Data Check				
CryoSat L1B data includes a measurement confidence flag for each measurer	nent record. The bit value of this flag	indicates any problems when set.		
> Attitude Correction Missing: This flag is currently set in error for NOPR prupdated in the next SW update.	oducts due to a configuration issue. T	The attitude correction is not actually missing, This is being investigated and will be		
Number of products with errors: 3				
Product	Test Failed	Description		
CS_OFFL_SIR_NOPM1B_20220222T100926_20220222T102250_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records		
CS_OFFL_SIR_NOPM1B_20220222T132347_20220222T134915_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records		
CS_OFFL_SIR_NOPM1B_20220222T225030_20220222T225349_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records		
4.6 L1B Waveform Group Data Check				
CryoSat L1B data includes a waveform data flag for each measurement record	d. The bit value of this flag indicates a	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: 9				
Product	Test Failed	Description		
CS_OFFL_SIR_NOPM1B_20220222T092246_20220222T092953_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPN1B_20220222T000913_20220222T001101_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPN1B_20220222T153647_20220222T154111_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPN1B_20220222T204630_20220222T205017_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_NOPR1B_20220222T023026_20220222T023529_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS OFFL SIR NOPR1B 20220222T104248 20220222T104354 C001	Loss of Echo	The tracking echo is missing for one or more records		

# CS\_OFFL\_SIR\_NOPR1B\_20220222T123128\_20220222T123218\_C001 Loss of Echo The tracking echo is missing for one or more records CS\_OFFL\_SIR\_NOPR1B\_20220222T205017\_20220222T205105\_C001 Loss of Echo The tracking echo is missing for one or more records

Loss of Echo

### 5. NOP Level 2 Data Quality Check

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: 0

#### 5.2 L2 Product Header Analysis

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

Number of products with errors:

#### 5.3 L2 Auxiliary Data File Usage Check

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

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

CS OFFL SIR NOPR1B 20220222T122555 20220222T123119 C001

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

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

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

> ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.

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

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20220222T005510_20220222T010057_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220222T013833_20220222T013951_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_20220222T014747_20220222T015024_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_20220222T031753_20220222T031914_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_20220222T032803_20220222T032927_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_20220222T045743_20220222T050108_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_20220222T055626_20220222T055858_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_20220222T063648_20220222T064009_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_20220222T064526_20220222T064649_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_20220222T072629_20220222T072902_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20220222T082415_20220222T082533_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_20220222T090700_20220222T090805_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_20220222T100124_20220222T100324_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_20220222T122043_20220222T122555_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_20220222T135838_20220222T140418_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_20220222T153647_20220222T154111_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220222T163013_20220222T163137_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_20220222T194944_20220222T195250_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_20220222T195526_20220222T200037_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_20220222T204630_20220222T205017_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220222T213005_20220222T213239_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_20220222T222515_20220222T222632_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_20220222T222855_20220222T223133_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20220222T230504_20220222T231114_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_20220222T023026_20220222T023529_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_20220222T040725_20220222T041730_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_20220222T054740_20220222T055626_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_20220222T072902_20220222T073646_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_20220222T090805_20220222T091519_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_20220222T104720_20220222T105409_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_20220222T122555_20220222T123119_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_20220222T123128_20220222T123218_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_20220222T140418_20220222T140622_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_20220222T140622_20220222T141331_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_20220222T154111_20220222T154855_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_20220222T191200_20220222T191812_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records

#### 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: 3 Test Failed Product Description CS\_OFFL\_SIR\_NOPM\_2\_20220222T100926\_20220222T102250\_C001 Power scaling error There is an error in the scaling of the L2 waveform for one or more records CS OFFL SIR NOPM 2 20220222T132347 20220222T134915 C001 Power scaling error There is an error in the scaling of the L2 waveform for one or more records CS\_OFFL\_SIR\_NOPM\_2\_20220222T225030\_20220222T225349\_C001 There is an error in the scaling of the L2 waveform for one or more records Power scaling error

#### 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.

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#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220222T000101_20220222T000913_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_20220222T001109_20220222T002730_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_20220222T003124_20220222T003603_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_20220222T011014_20220222T011402_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_20220222T011405_20220222T013722_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_20220222T013951_20220222T014154_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_20220222T014232_20220222T014747_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_20220222T015024_20220222T021541_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_20220222T024824_20220222T031604_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_20220222T032159_20220222T032803_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_20220222T032927_20220222T035745_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_20220222T042114_20220222T045516_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_20220222T050109_20220222T050635_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_20220222T050806_20220222T051426_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_20220222T060047_20220222T060913_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_20220222T061157_20220222T063452_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_20220222T064009_20220222T064113_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_20220222T064117_20220222T064526_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_20220222T064655_20220222T070701_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_20220222T071028_20220222T071437_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_20220222T073902_20220222T081251_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_20220222T082032_20220222T082414_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_20220222T082617_20220222T082851_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_20220222T083113_20220222T090242_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_20220222T091648_20220222T091651_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_20220222T091732_20220222T091733_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_20220222T092246_20220222T092953_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_20220222T093728_20220222T095219_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_20220222T095355_20220222T095911_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_20220222T100926_20220222T102250_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_20220222T102658_20220222T103706_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_20220222T110432_20220222T111310_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_20220222T111635_20220222T113130_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_20220222T113322_20220222T113823_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_20220222T113848_20220222T113858_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_20220222T115248_20220222T115926_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_20220222T120422_20220222T120843_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_20220222T121126_20220222T121715_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_20220222T124807_20220222T131041_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_20220222T131352_20220222T131741_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_20220222T131802_20220222T132039_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_20220222T132347_20220222T134915_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_20220222T142437_20220222T145010_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_20220222T145136_20220222T145656_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_20220222T150309_20220222T153647_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_20220222T160650_20220222T161957_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_20220222T162328_20220222T162958_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_20220222T163137_20220222T163628_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_20220222T184721_20220222T185655_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_20220222T190831_20220222T190900_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_20220222T191007_20220222T191200_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_20220222T192726_20220222T193332_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_20220222T193519_20220222T194846_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_20220222T195250_20220222T195526_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_20220222T200133_20220222T203217_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_20220222T205105_20220222T212303_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_20220222T213239_20220222T213434_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_20220222T213638_20220222T213939_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_20220222T214101_20220222T214511_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_20220222T214537_20220222T220956_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_20220222T222632_20220222T222855_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_20220222T223555_20220222T224742_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_20220222T230407_20220222T230504_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_20220222T231412_20220222T231840_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_20220222T232032_20220222T233526_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_20220222T233705_20220222T233948_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_20220222T235158_20220222T235224_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220222T055626_20220222T055858_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPN_2_20220222T055915_20220222T060009_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220222T113858_20220222T113901_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220222T124152_20220222T124551_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_20220222T191200_20220222T191812_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220222T214512_20220222T214536_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220222T234210_20220222T234415_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

### L2 Quality Flags (20 Hz PLRM)

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

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

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

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20220222T000913_20220222T001101_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_20220222T003603_20220222T003949_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_20220222T005510_20220222T010057_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_20220222T013833_20220222T013951_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_20220222T045743_20220222T050108_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_20220222T050635_20220222T050752_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_20220222T064526_20220222T064649_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_20220222T070702_20220222T071028_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_20220222T072629_20220222T072902_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_20220222T082415_20220222T082533_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_20220222T100124_20220222T100324_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_20220222T104504_20220222T104720_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_20220222T114804_20220222T115248_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_20220222T115926_20220222T120353_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_20220222T122043_20220222T122555_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_20220222T123658_20220222T123701_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_20220222T124152_20220222T124551_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

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000000000000000000000000000000000000	CS_OFFL_SIR_NOPN_2_20220222T135237_20220222T135443_C001		
Cold Tuber Unit Unit Unit Unit Unit Unit Unit Unit	CS_OFFL_SIR_NOPN_2_20220222T135838_20220222T140418_C001		
City City City City City City City City	CS_OFFL_SIR_NOPN_2_20220222T150028_20220222T150150_C001		
es. OFTL. BRI. NOPHL 2, 18228222719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 2222822719494. 222822719494. 22882844 2249 http://doi.org//doi.	CS_OFFL_SIR_NOPN_2_20220222T192527_20220222T192726_C001		
Display         Display         memory         memory         memory         memory           Cisplay         Cisplay<	CS_OFFL_SIR_NOPN_2_20220222T194944_20220222T195250_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Disk         Disk <thdisk< th="">         Disk         Disk         <thd< td=""><td>CS_OFFL_SIR_NOPN_2_20220222T195526_20220222T200037_C001</td><td></td><td>· · ·</td></thd<></thdisk<>	CS_OFFL_SIR_NOPN_2_20220222T195526_20220222T200037_C001		· · ·
<ul> <li>DCOR Backsoner Gally</li> <li>DCOR Backsoner Gally</li></ul>	CS_OFFL_SIR_NOPN_2_20220222T204630_20220222T205017_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Open PT, Sin J, NOPR 2, 20220227123140_0202227123291_001         OCC Backcatter Quilty PTM, OCC Anternet Range and Backcatter Quilty Ptags.           OS, OFFL_SIR_NOPR 2, 20220227123140_0202227123291_001         Methods State S	CS_OFFL_SIR_NOPN_2_20220222T213435_20220222T213637_C001	<b>0</b>	
GS_OFFL_SIR_NOPR_2_2022022T022829_2022022T022829_20202022T022829_2020022T022829_2020022T02289_2020022T02289_2020022T02289_2020022T02809_2020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T002809_20020022T004709_2020022T004709_2020022T004709_2020022T004709_2020022T004709_2020022T004709_2020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T004709_20020022T005669_20001	CS_OFFL_SIR_NOPN_2_20220222T230504_20220222T231114_C001		
GS. OFFL_SIR_NOPR_2_2022022T02828_020022T02828_0001         and backaster Cually PLIN.         Immuno Company SPLN, NOPR           GS. OFFL_SIR_NOPR_2_2022022T02869_2022022T02804_0001         Decan Alimeter Range and Backaster Cually PLIN.         The Ocean Alimeter Range and Backaster Cually Flags have been and to company SPLN, SPLN	CS_OFFL_SIR_NOPN_2_20220222T231840_20220222T232021_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_2022022T02283_20222T023094_C001     and Backscatter Quality PLB, COO Allmeter Range and Backscatter Quality PLB, there been and to not more records     import Range, SSHA, SWH and Backscatter Quality PLB, there been and to not more records       CS_OFFL_SIR_NOPR_2_2022022T032084_2022T033098_00222T033098_0001     Ocean Allmeter Range, SSHA, SWH and Backscatter Quality PLB, SCH, QUAL Allmeter Range and Backscatter Quality PLB, SCH, QUAL Allmeter Range and Backscatter Quality FLB, SCH, QUAL Allmeter Range and Backscatter Quality FLB, SCH, SWH and Backscatter Quality FLB, SCH, Allmeter Range and Backscatter Quality FLB, SCH, Allmeter Range, SSHA, SWH and Backscatter Quality FLB, SC, OFFL_SIR_NOPR_2_2022022T054740_2022022T055686_C001     The Ocean Allmeter Range, SSHA, SWH and Backscatter Quality FLB, Allmeter Range and Backscatter Quality FLB, Allmeter Range and Backscatter Quality FLB, Allmeter Range, SSHA, SWH and Backscatter Quality FLB, and Backscatter Quality FLB, SCH, Allmeter Range and Backscatter Quality FLB, and Backscatter Quality FLB, SCH, NOPR_2_20220222T073866_C001     The Ocean Allmeter Range, SSHA, SWH and Backscatter Quality FLB, and Backscatter Quality FLB, SCH, NOPR_2_20220222T073866_C001     The Ocean Allmeter Range, SSHA, SWH and Backscatter Quality FLB, and Backscatter Quality FLB, SCH, NOPR_2_20220222T073866_C001     The Ocean Allmeter Range, SSHA, SWH and Backscatter Quality FLB, SCH, SCH, SCH, NOPR_2_20220222T073864_C001     Ocean Allmeter Range, SSHA, SWH and Backscatter Quality FLB, SCH, SCH, SCH, SCH, SCH, SCH, SCH, SCH,	CS_OFFL_SIR_NOPR_2_20220222T022623_20220222T022829_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
GS_OFFL_SIR_NOPR_2_2022022T02302_072322T023529_C001       and Backsatter Quality PLRM, COCO Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting and Backsatter Quality Flags have been after one or more reacting.         GS_OFFL_SIR_NOPR_2_2022022T040725_0222022T041730_C001       Desan Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.       The Ocean Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.         GS_OFFL_SIR_NOPR_2_2022022T064740_20220222T056626_C001       Desan Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.       The Ocean Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.         GS_OFFL_SIR_NOPR_2_2022022T066913_2022022T056626_C0011       Desan Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.       The Ocean Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.         GS_OFFL_SIR_NOPR_2_2022022T076901_3_2022022T073646_C0011       Desan Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.       The Ocean Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after one or more reacting.         GS_OFFL_SIR_NOPR_2_2022022T073764_0220222T073764_0220222T073764_0202022T073764_0202022T073764_0202022T073764_0202022T073764_0202022T07364_02001       DOCOA Attimeter Range, SSHA, SWH and Backsatter Quality Flags have been after on one one necods.         GS_OFFL_SIR_NOPR_2_2022022T092055_2022022T092054_C0011       Decean Attimeter Range, SSHA, SWH and Backsatter Quality Flags have	CS_OFFL_SIR_NOPR_2_20220222T022859_20220222T023004_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
GS_OFFL_SIR_NOPR_2_20220222T04725_2022022T041730_C001       and Backscatter Quaity PLBM       mot be COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBS, and the COGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter Quaity PLBM, COCGA Altmeter Range, SSHA, SWH and Backscatter	CS_OFFL_SIR_NOPR_2_20220222T023026_20220222T023529_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
GS_OFFL_SIR_NOPR_2_2022022T054740_2022022T055666_C001       All Backscatter Quality PLRM_COCO       Intel Cole number Plange and Backscatter Quality Plags         GS_OFFL_SIR_NOPR_2_20220222T060913_2022022T061157_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T072902_2022022T073646_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T073904_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T073754_20220222T073646_C001       CCGA Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T090805_2022022T091519_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO         GS_OFFL_SIR_NOPR_2_20220222T09805_20220222T09344_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCO       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM_COCOG         GS_OFFL_SIR_NOPR_2_20220222T0	CS_OFFL_SIR_NOPR_2_20220222T040725_20220222T041730_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T060913_20220222T0157_C001       and Backscatter Qualiy PLRM, OCGA       Interfer Range and Backscatter Qualiy PLRM, OCGA         CS_OFFL_SIR_NOPR_2_20220222T072902_20220222T073646_C001       Qualiy PLRM, OCGA       The Ocean Altimeter Range, SSHA, SWH and Backscatter Qualiy PLRM, OCGA         CS_OFFL_SIR_NOPR_2_20220222T073646_C001       Qualiy PLRM, OCGA       The Ocean Altimeter Range, SSHA, SWH and Backscatter Qualiy PLRM, OCGA         CS_OFFL_SIR_NOPR_2_20220222T073764_20220222T073902_C001       QCGG Altimeter Range, SSHA, SWH, and Backscatter Qualiy PLRM, OCGA       The OCGG Range and Backscatter Qualiy FLRM, OCGA         CS_OFFL_SIR_NOPR_2_20220222T093085_20220222T093092_C001       QCGG Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA       The OCGG Range and Backscatter Qualiy FLRM, OCGA         CS_OFFL_SIR_NOPR_2_20220222T093085_20220222T091519_C001       QCGean Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA       The OCGG Range and Backscatter Qualiy FLRM, OCGA         GS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       QCean Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA       The OCGA Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA         GS_OFFL_SIR_NOPR_2_20220222T1092053_20220222T093434_C001       QCean Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA       The OCGA Range and Backscatter Qualiy FLRM, OCGA         GS_OFFL_SIR_NOPR_2_20220222T1092504_C001       QCCGA Altimeter Range, SSHA, SWH and Backscatter Qualiy FLRM, OCGA       The OCGG Range and Backscatter Qualiy FLRM, OCGA	CS_OFFL_SIR_NOPR_2_20220222T054740_20220222T055626_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T073902_20220222T073646_C001       and Backscatter Quality PLM, CCCG         Alimeter Range and Backscatter Quality PLRM       CCG_OFFL_SIR_NOPR_2_20220222T073754_20220222T073902_C001       OCCG Alimeter Range and Backscatter Quality PLRM, CCCG         CS_OFFL_SIR_NOPR_2_20220222T073754_20220222T073902_C001       OCCG Alimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T093005_2022022T091519_C001       OCCG Alimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       OCCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T10250_20222T109264_C001       OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T104246_20220222T104344_C001       OCCGA Altimeter Range Quality PLRM, OCCG         Altimeter Range and Backscatter Quality       The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T104250_20222T104246_C001       OCCGA Altimeter Range Quality PLRM, OCCG <td>CS_OFFL_SIR_NOPR_2_20220222T060913_20220222T061157_C001</td> <td>and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality</td> <td>and the OCOG Altimeter Range and Backscatter Quality Flags have been</td>	CS_OFFL_SIR_NOPR_2_20220222T060913_20220222T061157_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
US_OFFL_SIR_NOPR_2_20220221103/39_20220221109304_C001       OCOG Backscatter Quality       more records         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T1093434_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been PLRM         CS_OFFL_SIR_NOPR_2_20220222T10250_2022022T102504_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_20220222T103706_20220222T104216_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_20220222T104248_20220222T104354_C001       OCOG Altimeter Range SSHA, SWH and Backscatter Quality       The OCOG Range and Backscatter Quality Flags have been set for one or more records         Cs_OFFL_SIR_NOPR_2_202202222T104354_2020222T104354_C001	CS_OFFL_SIR_NOPR_2_20220222T072902_20220222T073646_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T090805_20220222T091519_C001       and Backscatter Quality PLRM_OCCG       and Bockscatter Quality PLRM_OCCG         CS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       and Backscatter Quality PLRM_OCCG       and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and be COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the COCG Altimeter Range and Backscatter Quality Flags and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T10250_2022022T102504_C001       CCCG Altimeter Range Quality PLRM, OCCG         CS_OFFL_SIR_NOPR_2_20220222T103706_20220222T104216_C001       CCCG Altimeter Range Quality PLRM, OCCG         CS_OFFL_SIR_NOPR_2_20220222T104216_C001       CCCG Altimeter Range Quality PLRM, OCCG         CS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_C001       CCCG Altimeter Range Quality PLRM, OCCG         CS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_C001       CCCG Altimeter Range Quality PLRM, OCCG         CS_OFFL_SIR_NOPR_2_20220222T104354_C001       CCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T104354_C001       C	CS_OFFL_SIR_NOPR_2_20220222T073754_20220222T073902_C001	OCOG Backscatter Quality	
CS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001       and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Range and Backscatter Quality Flags have been set for one or more records         CS_OFFL_SIR_NOPR_2_20220222T10250_2022022T104216_C001       OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Qu	CS_OFFL_SIR_NOPR_2_20220222T090805_20220222T091519_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality PLRMThe OCOG Attimeter Range and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality PLRMCS_OFFL_SIR_NOPR_2_20220222T102250_20220222T102504_C001OCOG Attimeter Range Quality PLRM, OCOG Backscatter QualityThe OCOG Range and Backscatter Quality Flags have been set for one or more recordsCS_OFFL_SIR_NOPR_2_20220222T103706_20220222T104216_C001OCOG Attimeter Range Quality PLRM, OCOG Backscatter QualityThe OCOG Range and Backscatter Quality Flags have been set for one or more recordsCS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_C001OCOG Attimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality PLRM, OCOG Attimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more recordsCS_OFFL_SIR_NOPR_2_20220222T104354_20220222T104354_20200222T104354_20220222T104354_20220222T104503_C001Ocean Attimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_NOPR_2_20220222T091801_20220222T092245_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T10250_20220221T102504_C0011       OCOG Backscatter Quality       more records         CS_OFFL_SIR_NOPR_2_20220222T103706_20220222T104216_C001       OCOG Attimeter 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_20220222T104248_20220222T104354_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records       The Ocean Altimeter Range, SSHA, SWH and the OCOG Attimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality PLRM, OCOG and the OCOG Attimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_NOPR_2_20220222T092953_20220222T093434_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPR_2_20220222T103706_20220222T104216_C001       OCOG Backscatter Quality       more records         CS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_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 PLRM         CS_OFFL_SIR_NOPR_2_20220222T104354_20220222T104354_20200222T104503_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, ocog and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been exercise	CS_OFFL_SIR_NOPR_2_20220222T102250_20220222T102504_C001		
CS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_C001       and Backscatter Quality PLRM, OCOG       Altimeter Range and Backscatter Quality PLRM, OCOG       Altimeter Range and Backscatter Quality PLRM, OCOG         CS_OFFL_SIR_NOPR_2_20220222T104354_20220222T104503_C001       Altimeter Range, SSHA, SWH       And Backscatter Quality PLRM, OCOG         Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH         Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH         Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags         Altimeter Range, SSHA, SWH       Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_NOPR_2_20220222T103706_20220222T104216_C001	OCOG Backscatter Quality	
CS_OFFL_SIR_NOPR_2_20220222T104354_20220222T104503_C001 and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_NOPR_2_20220222T104248_20220222T104354_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_NOPR_2_20220222T104354_20220222T104503_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been

CS_OFFL_SIR_NOPR_2_20220222T104720_20220222T105409_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_20220222T111455_20220222T111634_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_20220222T113130_20220222T113134_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_20220222T121837_20220222T122043_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_20220222T123128_20220222T123218_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_20220222T124644_20220222T124807_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_20220222T132258_20220222T132347_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_20220222T140418_20220222T140622_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_20220222T140622_20220222T141331_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_20220222T150150_20220222T150309_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_20220222T154932_20220222T155127_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_20220222T161957_20220222T162327_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_20220222T191200_20220222T191812_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_20220222T191956_20220222T192021_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_20220222T194847_20220222T194944_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_20220222T200037_20220222T200133_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_20220222T223327_20220222T223554_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_20220222T234210_20220222T234415_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

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

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

151

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

```
Number of products with errors:
```

### 5.7 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20 Hz)

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

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

Number of products with errors:

### L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors:

109

51

### 7. NOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	181	181	7	174	0
SIR_NOPR1B	89	89	0	89	0
SIR_NOPN1B	83	83	1	82	0
SIR_NOPM_2	181	181	128	53	0
SIR_NOPR_2	89	89	33	53	3
SIR_NOPN_2	83	83	33	50	0

### 7.1 QCC Errors

#### Number of QCC reports with errors:

Number of QCC rep	orts with er	rors:	6								
					Total number	of occurrences	s of each error				
Product Type RLO	BOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_NOPR_2	3	3	3	3							
Test Description Ke	ey:										
Abbreviation Test name			Details								
RLOBOPNCDF	RangeLa	titudeOrBlankOP_	7NetCDF	Latitude should be	between -90E7 an	d 90E7 - NetCDF					
RL	RangeLa	titude_7		Latitude should be between -90E7 and 90E7							
RLOBOPNCDF	RangeLo	ngitudeOrBlankOF	P_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF							
RL	RangeLo	ngitude_7		Longitude should b	be between -180E7	and 180E7					

### 7.2 QCC Warnings

#### Number of QCC reports with warnings

Number of QCC report	ts with warnings	1396					
			Total numb	per of occurrences of ea	ch warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_NOPM1B	174	0	0	0	0	0	0
SIR_NOPM_2	0	0	34	34	0	43	0
SIR_NOPN1B	82	0	0	0	0	0	0
SIR_NOPN_2	0	0	8	26	6	18	21
SIR_NOPR1B	87	0	0	0	0	0	0
SIR_NOPR_2	0	3	14	29	1	20	19

Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARN	ICERPEPOPFDPLRMSINN	ICD RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	36	32	0	0	0	0	23
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	13	0	0	14	0	26	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	11	0	30	0	38	0	0
		•			•		
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	0	6	19	0	4	34
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	21	13	36	43	20	26
SIR_NOPR1B	0	0	0	0	0	0	0
SIR NOPR 2	29	0	7	41	16	6	20
_				•		-	
Product Type	RSWHOEPFDPLRMNCD	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
i iouuot iype							

SIR_NOPM1B	0	0	0	0	0	0	
SIR_NOPM_2	0	1	0	0	0	0	
SIR_NOPN1B	0	0	1	0	39	1	
SIR_NOPN_2	26	14	0	1	0	0	
SIR_NOPR1B	0	0	0	0	89	4	
SIR_NOPR_2	31	1	0	5	0	0	

Fest Description Key:								
Abbreviation	Test name	Details						
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter						
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						
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_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

# 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0