

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

<u>14/04/2023</u>

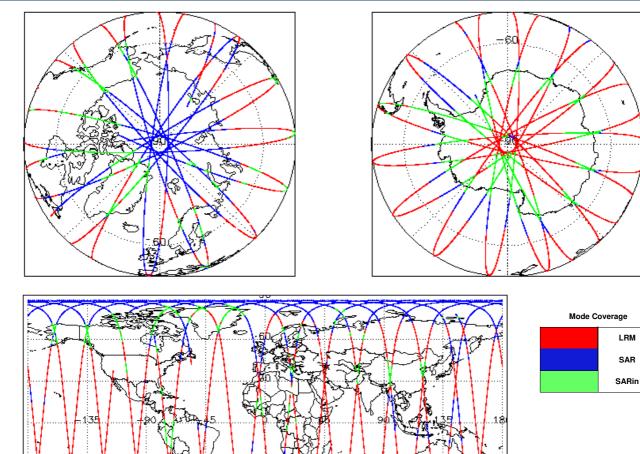
## IDEAS-QA4E0

Demant Due due tierre	17 1	Check	L1 & L2	P2P
Report Production:	17-Apr-2023	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	Cruce Cat Ocean Dreasoner	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Usea:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	Product Format Check	Nominal	Nominal
Data Oseu:		Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
We would	love to hear from you!	Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
	your feedback about these daily	Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
	t do you like/ dislike? What quality	Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
information do you need? Send your feedback to		Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
cs2_qc_t	team@telespazio.com	QCC Error/ Warning Check	See Section 7.2	See Section 7.2

1. Overview

Mission / Instrument News				
13-Apr-2023				
14-Apr-2023	None			
15-Apr-2023	Nothing planned			





## 3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

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

4. IOP 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 S	PH in order to identify any inconsistencies	and/or errors raised by the ground-segment processing chain.
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 pre-d	letermined baseline and also to check the v	alidity of Auxiliary Data Files is correct.
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.	The bit value of this flag indicates any probl	ems 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 measuremen	nt record. The bit value of this flag indicates	any problems when set.
> Attitude Correction Missing: This flag is currently set in error for IOPR produ- update.	cts due to a configuration issue. The attitud	$\ensuremath{c}$ correction is actually not missing. This will be resolved in the next SW
Number of products with errors: 1		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20230414T001202_20230414T002502_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
4.6 L1B Waveform Group Data Check		

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

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Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected. The table provides the full list of products flagged.

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20230414T030250_20230414T031102_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20230414T090402_20230414T090404_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20230414T152326_20230414T152740_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T000454_20230414T001033_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T014907_20230414T015044_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T041406_20230414T041957_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T082534_20230414T082651_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T090315_20230414T090402_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T150347_20230414T150553_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T181925_20230414T182046_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T195832_20230414T195944_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230414T231820_20230414T231921_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230414T072603_20230414T073623_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230414T103953_20230414T104550_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230414T105639_20230414T105754_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230414T135624_20230414T140129_C001	Loss of Echo	The tracking echo is missing for one or more records

## 5. IOP Level 2 Data Quality Check

#### 5.1 L2 Product Format Check

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

Number of products with errors.

#### 5.2 L2 Product Header Analysis

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

Number of products with errors:

#### 5.3 L2 Auxiliary Data File Usage Check

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

#### 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. The affected products are not reported in the table below.

> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230414T125728_20230414T131103_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T000023_20230414T000259_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)
CS_OFFL_SIR_IOPN_2_20230414T000454_20230414T001033_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)
CS_OFFL_SIR_IOPN_2_20230414T005541_20230414T005838_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)
CS_OFFL_SIR_IOPN_2_20230414T013902_20230414T014201_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)
CS_OFFL_SIR_IOPN_2_20230414T023451_20230414T023558_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)
CS_OFFL_SIR_IOPN_2_20230414T031754_20230414T032001_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)
CS_OFFL_SIR_IOPN_2_20230414T041406_20230414T041957_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T050650_20230414T050921_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T063648_20230414T063809_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T073623_20230414T074018_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T081638_20230414T082006_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)
CS_OFFL_SIR_IOPN_2_20230414T082534_20230414T082651_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T095547_20230414T095907_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)
CS_OFFL_SIR_IOPN_2_20230414T104550_20230414T104758_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)
CS_OFFL_SIR_IOPN_2_20230414T114322_20230414T114431_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)
CS_OFFL_SIR_IOPN_2_20230414T122555_20230414T122702_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)
CS_OFFL_SIR_IOPN_2_20230414T132023_20230414T132221_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)
CS_OFFL_SIR_IOPN_2_20230414T140401_20230414T140617_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)
CS_OFFL_SIR_IOPN_2_20230414T145859_20230414T150343_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)
CS_OFFL_SIR_IOPN_2_20230414T163920_20230414T164154_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T171930_20230414T172317_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)
CS_OFFL_SIR_IOPN_2_20230414T191003_20230414T191056_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T194908_20230414T195032_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20230414T213522_20230414T213826_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)
CS_OFFL_SIR_IOPN_2_20230414T230834_20230414T231141_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)
CS_OFFL_SIR_IOPN_2_20230414T231424_20230414T231808_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)
CS_OFFL_SIR_IOPR_2_20230414T004955_20230414T005431_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)
CS_OFFL_SIR_IOPR_2_20230414T005431_20230414T005541_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)
CS_OFFL_SIR_IOPR_2_20230414T013427_20230414T013902_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20230414T022810_20230414T023001_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20230414T023001_20230414T023451_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)
CS_OFFL_SIR_IOPR_2_20230414T024359_20230414T024530_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_IOPR_2_20230414T040720_20230414T041406_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)

CS_OFFL_SIR_IOPR_2_20230414T054924_20230414T055423_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)
CS_OFFL_SIR_IOPR_2_20230414T072603_20230414T073623_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)
CS_OFFL_SIR_IOPR_2_20230414T090717_20230414T091517_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)
CS_OFFL_SIR_IOPR_2_20230414T104758_20230414T105503_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)
CS_OFFL_SIR_IOPR_2_20230414T122702_20230414T123418_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)
CS_OFFL_SIR_IOPR_2_20230414T134147_20230414T134310_C001	Mean Sea Surface (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPR_2_20230414T140617_20230414T141312_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)
CS_OFFL_SIR_IOPR_2_20230414T154454_20230414T155112_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)
CS_OFFL_SIR_IOPR_2_20230414T172317_20230414T172446_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)
CS_OFFL_SIR_IOPR_2_20230414T172447_20230414T173222_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)
CS_OFFL_SIR_IOPR_2_20230414T190011_20230414T190752_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)
CS_OFFL_SIR_IOPR_2_20230414T203939_20230414T204613_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)
CS_OFFL_SIR_IOPR_2_20230414T204613_20230414T204905_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)
CS_OFFL_SIR_IOPR_2_20230414T221757_20230414T222513_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)
CS_OFFL_SIR_IOPR_2_20230414T222513_20230414T222715_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)

## 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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230414T001202_20230414T002502_C001	Power scaling error	There is an error in the scaling of the L1B 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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230414T000300_20230414T000454_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_IOPM_2_20230414T001202_20230414T002502_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_IOPM_2_20230414T002623_20230414T002913_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_IOPM_2_20230414T003355_20230414T004126_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_IOPM_2_20230414T010109_20230414T011824_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_IOPM_2_20230414T012012_20230414T013427_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_IOPM_2_20230414T014201_20230414T014405_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_IOPM_2_20230414T014503_20230414T014907_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_IOPM_2_20230414T015055_20230414T020503_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_IOPM_2_20230414T020822_20230414T021745_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_IOPM_2_20230414T022328_20230414T022331_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_IOPM_2_20230414T023559_20230414T023655_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_IOPM_2_20230414T024530_20230414T025712_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_IOPM_2_20230414T030250_20230414T031102_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_IOPM_2_20230414T031201_20230414T031701_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_IOPM_2_20230414T032002_20230414T032810_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_IOPM_2_20230414T033029_20230414T034601_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_IOPM_2_20230414T042858_20230414T043248_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_IOPM_2_20230414T043250_20230414T045612_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_IOPM_2_20230414T045847_20230414T050052_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_IOPM_2_20230414T050127_20230414T050650_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_IOPM_2_20230414T050935_20230414T053439_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_IOPM_2_20230414T060646_20230414T063443_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_IOPM_2_20230414T064056_20230414T064657_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_IOPM_2_20230414T064821_20230414T071614_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPM_2_20230414T072507_20230414T072603_C001	Altimeter Hange and Backscatter Quality Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPM_2_20230414T074018_20230414T081353_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPM_2_20230414T082006_20230414T082534_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_IOPM_2_20230414T082715_20230414T083323_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_IOPM_2_20230414T090420_20230414T090632_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_IOPM_2_20230414T091930_20230414T092946_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_IOPM_2_20230414T093054_20230414T095317_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_IOPM_2_20230414T095907_20230414T100011_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_IOPM_2_20230414T100627_20230414T102600_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_IOPM_2_20230414T105754_20230414T113131_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_IOPM_2_20230414T113441_20230414T113909_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_IOPM_2_20230414T113928_20230414T114322_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_IOPM_2_20230414T114613_20230414T114923_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_IOPM_2_20230414T115011_20230414T122137_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_IOPM_2_20230414T122303_20230414T122555_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_IOPM_2_20230414T123632_20230414T123635_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_IOPM_2_20230414T124138_20230414T124848_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_IOPM_2_20230414T125728_20230414T131103_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_IOPM_2_20230414T131252_20230414T131809_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_IOPM_2_20230414T132833_20230414T134147_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_IOPM_2_20230414T135430_20230414T135624_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_IOPM_2_20230414T142326_20230414T143351_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_IOPM_2_20230414T143531_20230414T145002_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_IOPM_2_20230414T145219_20230414T145721_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_IOPM_2_20230414T150553_20230414T150653_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_IOPM_2_20230414T151237_20230414T151811_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_IOPM_2_20230414T152326_20230414T152740_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_IOPM_2_20230414T155917_20230414T155953_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_IOPM_2_20230414T160753_20230414T162915_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_IOPM_2_20230414T163243_20230414T163638_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_IOPM_2_20230414T164256_20230414T170741_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_IOPM_2_20230414T174333_20230414T180907_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_IOPM_2_20230414T181030_20230414T181553_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_IOPM_2_20230414T181600_20230414T181925_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_IOPM_2_20230414T182232_20230414T185531_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_IOPM_2_20230414T191643_20230414T191802_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_IOPM_2_20230414T192658_20230414T193924_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_IOPM_2_20230414T194222_20230414T194842_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_IOPM_2_20230414T200146_20230414T203542_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_IOPM_2_20230414T204905_20230414T205006_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_IOPM_2_20230414T211746_20230414T212800_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_IOPM_2_20230414T213007_20230414T213522_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_IOPM_2_20230414T214123_20230414T220333_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_IOPM_2_20230414T220618_20230414T221546_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_IOPM_2_20230414T222715_20230414T223202_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_IOPM_2_20230414T223709_20230414T223848_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_IOPM_2_20230414T224627_20230414T225228_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_IOPM_2_20230414T225416_20230414T230648_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_IOPM_2_20230414T231142_20230414T231423_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_IOPM_2_20230414T232111_20230414T234739_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

	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_IOPM_2_20230414T234742_20230414T235102_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_IOPM_2_20230414T235201_20230414T235352_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_IOPN_2_20230414T035934_20230414T035959_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_IOPN_2_20230414T073623_20230414T074018_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_IOPN_2_20230414T081638_20230414T082006_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_IOPN_2_20230414T122555_20230414T122702_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_IOPR_2_20230414T004506_20230414T004510_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_IOPR_2_20230414T040720_20230414T041406_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_IOPR_2_20230414T085628_20230414T085709_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_IOPR_2_20230414T091910_20230414T091930_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_IOPR_2_20230414T125614_20230414T125728_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_IOPR_2_20230414T145002_20230414T145031_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_IOPR_2_20230414T164154_20230414T164256_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_IOPR_2_20230414T203939_20230414T204613_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_IOPR_2_20230414T210001_20230414T210119_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_IOPR_2_20230414T222513_20230414T222715_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_IOPR_2_20230414T223202_20230414T223542_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_IOPR_2_20230414T235102_20230414T235200_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

## L2 Quality Flags (20 Hz PLRM)

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

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

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

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Product	Test Failed	Description
CS OFEL SID IODN 2 20220414T000022 20220414T000250 C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS OFFE SIR IOPN 2 202304141021745 202304141022011 CO01	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_IOPN_2_20230414T023451_20230414T023558_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_IOPN_2_20230414T025712_20230414T030250_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_IOPN_2_20230414T031754_20230414T032001_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_IOPN_2_20230414T041406_20230414T041957_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_IOPN_2_20230414T045700_20230414T045847_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_IOPN_2_20230414T053716_20230414T053822_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_IOPN_2_20230414T054900_20230414T054924_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_IOPN_2_20230414T063648_20230414T063809_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_IOPN_2_20230414T073623_20230414T074018_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_IOPN_2_20230414T081638_20230414T082006_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_IOPN_2_20230414T091517_20230414T091734_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_IOPN_2_20230414T095547_20230414T095907_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_IOPN_2_20230414T102601_20230414T102928_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_IOPN_2_20230414T104550_20230414T104758_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_IOPN_2_20230414T113254_20230414T113441_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_IOPN_2_20230414T114322_20230414T114431_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_IOPN_2_20230414T122155_20230414T122303_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_IOPN_2_20230414T122555_20230414T122702_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_IOPN_2_20230414T131115_20230414T131252_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_IOPN_2_20230414T132023_20230414T132221_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_IOPN_2_20230414T140401_20230414T140617_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_IOPN_2_20230414T142020_20230414T142326_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_IOPN_2_20230414T145859_20230414T150343_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_IOPN_2_20230414T151000_20230414T151237_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_IOPN_2_20230414T151811_20230414T152250_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_IOPN_2_20230414T153612_20230414T153734_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_IOPN_2_20230414T162938_20230414T163243_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_IOPN_2_20230414T163920_20230414T164154_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_IOPN_2_20230414T171133_20230414T171332_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_IOPN_2_20230414T171735_20230414T171856_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_IOPN_2_20230414T173923_20230414T174110_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_IOPN_2_20230414T174236_20230414T174333_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_IOPN_2_20230414T180910_20230414T181030_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_IOPN_2_20230414T185531_20230414T190010_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_IOPN_2_20230414T190752_20230414T190829_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_IOPN_2_20230414T191003_20230414T191056_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_IOPN_2_20230414T194908_20230414T195032_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_IOPN_2_20230414T205149_20230414T205312_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_IOPN_2_20230414T205830_20230414T210001_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_IOPN_2_20230414T212841_20230414T213007_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_IOPN_2_20230414T230834_20230414T231141_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_IOPN_2_20230414T231424_20230414T231808_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_IOPR_2_20230413T235648_20230414T000023_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_IOPR_2_20230414T004126_20230414T004503_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_IOPR_2_20230414T004955_20230414T005431_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_IOPR_2_20230414T013427_20230414T013902_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_IOPR_2_20230414T020504_20230414T020822_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_IOPR_2_20230414T023001_20230414T023451_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_IOPR_2_20230414T023800_20230414T024238_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_IOPR_2_20230414T024359_20230414T024530_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_IOPR_2_20230414T034831_20230414T035258_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_IOPR_2_20230414T040720_20230414T041406_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_IOPR_2_20230414T041958_20230414T042219_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_IOPR_2_20230414T054519_20230414T054731_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_IOPR_2_20230414T054924_20230414T055423_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_IOPR_2_20230414T072314_20230414T072507_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_IOPR_2_20230414T072603_20230414T073623_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_IOPR_2_20230414T081353_20230414T081638_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_IOPR_2_20230414T083324_20230414T083621_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_IOPR_2_20230414T090002_20230414T090304_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_IOPR_2_20230414T090717_20230414T091517_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_IOPR_2_20230414T104758_20230414T105503_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_IOPR_2_20230414T105506_20230414T105542_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_IOPR_2_20230414T113131_20230414T113253_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_IOPR_2_20230414T122702_20230414T123418_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_IOPR_2_20230414T123645_20230414T124138_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_IOPR_2_20230414T125614_20230414T125728_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_IOPR_2_20230414T132221_20230414T132833_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_IOPR_2_20230414T134147_20230414T134310_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_IOPR_2_20230414T135624_20230414T140129_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_IOPR_2_20230414T140144_20230414T140400_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_IOPR_2_20230414T140617_20230414T141312_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_IOPR_2_20230414T145721_20230414T145728_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_IOPR_2_20230414T153734_20230414T153940_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_IOPR_2_20230414T154454_20230414T155112_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_IOPR_2_20230414T172447_20230414T173222_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_IOPR_2_20230414T182047_20230414T182232_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_IOPR_2_20230414T190011_20230414T190752_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_IOPR_2_20230414T190829_20230414T191003_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_IOPR_2_20230414T191056_20230414T191240_	C001 OCOG Altimeter Range Quality PLRM OCOG Backscatter Quality	I, The OCOG Range and Backscatter Quality Flags have been set for one or more records					
CS_OFFL_SIR_IOPR_2_20230414T203939_20230414T204613_	C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCO Altimeter Range and Backscatter Qua PLRM	G and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags					
CS_OFFL_SIR_IOPR_2_20230414T204613_20230414T204905_	C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCO Altimeter Range and Backscatter Qua PLRM	G and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags					
CS_OFFL_SIR_IOPR_2_20230414T205113_20230414T205149_	OFFL_SIR_IOPR_2_20230414T205113_20230414T205149_C001 OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, OCOG						
CS_OFFL_SIR_IOPR_2_20230414T213826_20230414T214123_	C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCO Altimeter Range and Backscatter Qua PLRM	G and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags					
CS_OFFL_SIR_IOPR_2_20230414T221757_20230414T222513_	C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCO Altimeter Range and Backscatter Qua PLRM	G and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags					
CS_OFFL_SIR_IOPR_2_20230414T222513_20230414T222715_	C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCO Altimeter Range and Backscatter Qua PLRM	G and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags					
CS_OFFL_SIR_IOPR_2_20230414T223550_20230414T223709_	C001 OCOG Altimeter Range Quality PLRM	I, The OCOG Range and Backscatter Quality Flags have been set for one or more records					
CS_OFFL_SIR_IOPR_2_20230414T235522_20230414T235531_	C001 OCOG Altimeter Range Quality PLRN OCOG Backscatter Quality	I, 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 summarized below						
		asted. The number of word, sta with this every flag act is siver below.					
Number of products with errors: 192	intentity set for products over sea ice, which is to be exp	ected. The number of products with this error flag set is given below.					
5.8 L2 Ocean Retracking Quality Check							
L2 Retracking Flags (20 Hz)							
CryoSat L2 data includes an ocean retracking quality flag for each							
<ul> <li>&gt; Ocean Retracking Quality Flag: This flag is currently set for pr</li> <li>Number of products with errors: 68</li> </ul>	oducts over land and sea ice, but this is to be expected	. The number of products with this error flag set is given below.					
Number of products with errors: 68							
L2 Retracking Flags (20 Hz PLRM)							
CryoSat L2 data includes an ocean retracking quality flag for each							
> Ocean Retracking Quality Flag (PLRM): This flag is currently given below.	set for products IOPR and IOPN products over sea ice,	but this is to be expected. The number of products with this error flag set is					
Number of products with errors: 145							
6	. IOP L2 Pole-to-Pole Data Quali	ity Check					
6.1 P2P Product Format Check							
	checked to opeuro it consists of both on VML beader fil						
Each product, retrieved and unpacked from the science server, is Number of products with errors: 0	Uneured to ensure it consists of doth an XML neader fil	פ (אווטיז) מווע מ וופנטר אווטעטנו ווופ (אוני).					
6.2 P2P Product Header Analysis							
For all products, a series of pre-defined checks are performed on	the MPH and SPH in order to identify any inconsistencie	es and/or errors raised by the ground-segment processing chain.					
Number of products with errors: 0							
6.3 P2P Auxiliary Data File Usage Check							
Each product is checked for missing Data Set Descriptors with res	spect to a pre-determined baseline and also to check the	e validity of Auxiliary Data Files is correct.					
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.           Number of products with errors:         0							
Number of products with errors: 0							
· · · · · · · · · · · · · · · · · · ·							
Number of products with errors:         0           6.4 P2P 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 check.

> 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. The affected products are not reported in the table below.

> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.

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

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

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

Number of products with errors:

Product

Description

US_OFFL_SIR_IOP_2_202304131231434_202304141000412_0002         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T000412_20230414T005349_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T005349_20230414T014327_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T014327_20230414T023304_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T023304_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T023304_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)         T           CS_OFFL_SIR_IOP_2_20230414T03242_20230414T050157_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T0642026_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T08042_2023	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1). There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1). There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1). There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414100412_202304141005349_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T005349_20230414T014327_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T014327_20230414T023304_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T014327_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean TGE (GOT)         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean TGE (GOT)           CS_OFFL_SIR_IOP_2_20230414T032242_20230414T050157_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean TGE (GOT)         T           CS_OFFL_SIR_IOP_2_20230414T051157_20230414T050157_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T095941_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solut
CS_OFFL_SIR_IOP_2_20230414100349_202304141014327_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T014327_20230414T023304_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T014327_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T032242_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T032242_20230414T041218_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T050157_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T1091002_C001         Mean Sea Surface (1),	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1). There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1). There is an error with the MSS height (solution 1), and the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414101432/202304141023304_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T023304_20230414T032242_C001         Mean Sea Surface (1), Mean Dynamic Tide (GOT)         T           CS_OFFL_SIR_IOP_2_20230414T032242_20230414T041218_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Topography (1), Total Geocentric Ocean Topography (1), Total Geocentric Ocean Topography (1), Mean Dynamic Topography (1), Total Geocentric Ocean Topography (1), Mean Dynamic Topography (1), Mean Dynamic Topography (1)           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T104917_C001         Mean Sea Surface	Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic GOT) for one or more records There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1
CS_OFFL_SIR_IOP_2_20230414T023304_20230414T032242_C001         Topography (1), Total Geocentric Ocean T Tide (GOT)           CS_OFFL_SIR_IOP_2_20230414T032242_20230414T041218_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean T Topography (1)           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic T Topography (1)         T T Topography (1)           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic T Topography (1)         T T T Topography (1)           CS_OFFL_SIR_IOP_2_20230414T1095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic T Topography (1)         T T T Topography (1)           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T112832_C001         Mean Sea Surface (1), Mean Dynamic T Topography (1)	Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_202304141032242_202304141041218_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T041218_20230414T050157_C001         Mean Sea Surface (1), Mean Dynamic Trde (GOT)         T           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_2026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Top	Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414T041218_20230414T050157_C001         Topography (1), Total Geocentric Ocean T Tide (GOT)           CS_OFFL_SIR_IOP_2_20230414T050157_20230414T055133_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1	Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414105015/202304141055133_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T055133_20230414T064111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T095941_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic Topog	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_202304141053133_202304141064111_c0011         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T064111_20230414T073048_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T095941_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         T         Mean Sea Surface (1), Mean Dynamic T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_202304141064111_202304141073048_C0011         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T073048_20230414T082026_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T095941_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T112832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T1131810_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_2023041410/3048_202304141002026_0001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T082026_20230414T091002_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T091002_20230414T095941_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic
CS_OFFL_SIR_IOP_2_20230414T1092028_20230414T1095041_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T1104917_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T122832_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic
CS_OFFL_SIR_IOP_2_20230414T1095941_20230414T1095941_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T1095941_20230414T104917_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic T         T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic
CS_OFFL_SIR_IOP_2_20230414T104917_20230414T1104917_C0011         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T104917_20230414T113855_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T1122832_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T1122832_20230414T122832_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic T         T	Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic
CS_OFFL_SIR_IOP_2_20230414T113855_20230414T113635_0001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T113855_20230414T122832_0001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T122832_20230414T131810_0001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_0001         Mean Sea Surface (1), Mean Dynamic T         T	
CS_OFFL_SIR_IOP_2_20230414T13855_20230414T132832_0001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T122832_20230414T131810_C001         Mean Sea Surface (1), Mean Dynamic T         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic T         T	Topography height (solution 1)
CS_OFFL_SIR_IOP_2_202304141131810_202304141131810_C001         Topography (1)         T           CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001         Mean Sea Surface (1), Mean Dynamic         T	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414T131810_20230414T140746_C001 Topography (1), Total Geocentric Ocean T	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414T181554_20230414T190531_C001 Topography (1), Total Geocentric Ocean T	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20230414T231338_20230415T000315_C002 Mean Sea Surface (1), Mean Dynamic T Topography (1) T	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

## 6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220230414T000412_20230414T005349_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

P2P Quality Flags (20 Hz)						
CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.						
Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. The number of P2P products affected is g below.	iven					
Number of products with errors: 30						
P2P Quality Flags (20 Hz PLRM)						
Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. The number of P2P products affected is g below.	iven					
Number of products with errors: 29						
P2P Quality Flags (1 Hz & 1 Hz PLRM)						
Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the number of L2 products affected. The number of P2P products affected is given below.						
Number of products with errors: 30						
6.8 P2P Ocean Retracking Quality Check						
P2P Retracking Flags (20 Hz)						
Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20 Hz 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 IOPR and IOPN products over sea ice, but this is to be expected.						
Number of products with errors: 30						
P2P Retracking Flags 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 IOPR and IOPN products over sea ice, but this is to be expected.						

## Number of products with errors:

30

## 7. IOP 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_IOPM1B	187	187	6	181	0
SIR_IOPR1B	134	102	1	101	0
SIR_IOPN1B	102	134	0	134	0
SIR_IOPM_2	187	187	132	55	0
SIR_IOPR_2	134	102	38	64	0
SIR_IOPN_2	102	134	56	78	0
SIR_IOP_P2P	29	29	0	29	0

## 7.1 QCC Errors

Number of QCC reports with errors:	0			
0				
				1

# 7.2 QCC Warnings

mber of QCC repo	orts with warnings	2171	Total numb	ber of occurrences of e	each warning		
Product Type	BCSHNCDF	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	RBSZOPOEPNCDF
SIR_IOPM1B	181	0	0	0	0	0	0
SIR_IOPM_2	0	38	41	0	42	0	37
SIR_IOPN1B	101	0	0	0	0	0	0
SIR_IOPN_2	0	12	33	2	22	27	19
SIR_IOPR1B	131	0	0	0	0	0	0
SIR_IOPR_2	0	30	44	2	25	20	11
					*		
Product Type	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCI	RPEPOPFDPLRMSINNC	DIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	34	0	0	0	0	31
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	1	0	0	15	0	32	0
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	0	0	41	0	50	0	0
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF		RSWHOEPFDNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	0	6	31	0	4	35
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	25	13	42	55	32	28
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	42	0	2	57	34	16	34
Due duet Turne	RSWHOEPFDPLRMNCDF		SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	
Product Type SIR IOPM1B		0	0	0	0	0	-
SIR IOPM 2	0	0	0	0	0	0	
SIR IOPN1B	0	0	0	0	46	3	
SIR IOPN 2	30	15	0	1	0	0	
SIR IOPR1B	0	0	1	0	134	9	
SIR IOPR 2	45	4	0	1	0	0	
JIN_IUFN_2	77	<b>۲</b>	v	['	V	v	1
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	RBSZOPOEPNCDF
SIR IOP 2	16	29	29	4	29	16	29
		1					r
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNC	DIRPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNC
SIR_IOP_2_	1	16	26	21	16	29	19
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF		SPHLPQWNCDF	-	-
SIR IOP 2	26	28	18	19	29		

Product Type		• • • •				
SIR_IOP_2_						
Test Description Key:						
Abbreviation	Test name	Details				
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only				
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean				
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean				
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
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:

1

L1B and L2 Product name n/a

P2P Product name CS\_OFFL\_SIR\_IOP\_2\_20230414T231338\_20230415T000315\_C002