

# 1. Overview

Report Production:	13-Jun-2023
Processor Used:	CryoSat Ocean Processor
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data

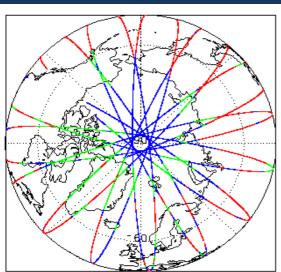
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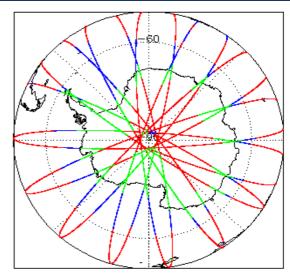
Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2\_qc\_team@telespazio.com

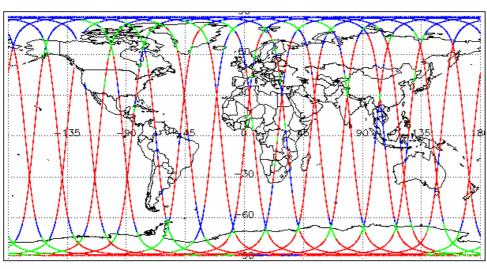
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

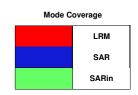
09-Jun-2023 None 10-Jun-2023 None 11-Jun-2023 Nothing planned	1	Mission / Instrument News		
		09-Jun-2023	None	
11-Jun-2023 Nothing planned		10-Jun-2023	None	
		11-Jun-2023	Nothing planned	

# 2. Global Coverage









# 3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

# 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).

#### 4.2 L1B Product Header Analysis

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

Number of products with errors:

# 4.3 L1B Auxilary Data File Usage Check

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

Number of products with errors:

### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

0

### 4.5 L1B Measurement Confidence Data Check

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

> Attitude Correction Missing: This flag is currently set in error for IOPR products due to a configuration issue. The attitude correction is actually not missing. This will be resolved in the next SW update.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20230610T053610_20230610T053802_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_20230610T071322_20230610T071502_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_20230610T191158_20230610T191305_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.

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_20230610T010855_20230610T013219_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20230610T105838_20230610T110741_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20230610T233257_20230610T234924_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T005106_20230610T005325_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T050247_20230610T050403_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T054106_20230610T054151_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T072234_20230610T072428_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T085932_20230610T090154_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T095739_20230610T095924_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T103704_20230610T104117_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T114044_20230610T114217_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T121742_20230610T122208_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T131515_20230610T131841_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20230610T230114_20230610T230725_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T004502_20230610T005105_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T022653_20230610T023039_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T040605_20230610T040908_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T071502_20230610T071604_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T090402_20230610T091133_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T121530_20230610T121649_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T145750_20230610T145947_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T153723_20230610T154448_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T180315_20230610T180530_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20230610T195442_20230610T195815_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:

# 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.

Number of products with errors:

0

# 5.4 L2 Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. 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 There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPM 2 20230610T022146 20230610T022214 C001 Mean Dynamic Topography (1) for one or more records There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPM 2 20230610T172624\_20230610T172851\_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPM 2 20230610T173250 20230610T173343 C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS\_OFFL\_SIR\_IOPN\_2\_20230610T005106\_20230610T005325\_C001 Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T013345\_20230610T013533\_C001 Topography height (solution 1) Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T022450\_20230610T022653\_C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height (solution 1) CS\_OFFL\_SIR\_IOPN\_2\_20230610T023039\_20230610T023520\_C001 Mean Dynamic Topography (1) for one or more records There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPN 2 20230610T031324 20230610T031500 C001 Mean Dynamic Topography (1) for one or more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T040431\_20230610T040604\_C001 Topography height (solution 1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS\_OFFL\_SIB\_IOPN\_2\_20230610T040908\_20230610T041017\_C001 Topography height (solution 1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T045312\_20230610T045700\_C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPN 2 20230610T053211 20230610T053346 C001 Mean Dynamic Topography (1) for one or more records There is an error with the Mean Dynamic Topography height (solution 1) CS\_OFFL\_SIR\_IOPN\_2\_20230610T054336\_20230610T054427\_C001 Mean Dynamic Topography (1) for one or more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20230610T063250 20230610T063606 C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height (solution 1) CS\_OFFL\_SIR\_IOPN\_2\_20230610T064118\_20230610T064239\_C001 Mean Dynamic Topography (1) for one or more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20230610T072234 20230610T072428 C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean There is an error with the MSS height (solution 1), the Mean Dynamic CS OFFL SIR IOPN 2 20230610T085932 20230610T090154 C001 Tide (GOT) Total Geocentric Ocean Topography (solution 1) and tidal corrections for one or more records Tide (FES), Non-Equilibrium Long Period Ocean Tide Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T090242\_20230610T090402\_C001 Topography height (solution 1) Topography (1) Mean Dynamic Topography (1), Total There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and 2: FES) and the Non-Geocentric Ocean Tide (GOT), Total CS OFFL SIR IOPN 2 20230610T103704 20230610T104117 C001 Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide for one or more records Equilibrium Long Period Ocean Tide Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T104153\_20230610T104313\_C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1), the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T121742\_20230610T122208\_C001 Topography (1), Total Geocentric Ocean Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: Tide (GOT) GOT) for one or more records There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPN 2 20230610T122753 20230610T122936 C001 Mean Dynamic Topography (1) for one or more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20230610T135640 20230610T140030 C001 Topography height (solution 1) Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS OFFL SIR IOPN 2 20230610T140058 20230610T140157 C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPN 2 20230610T145622 20230610T145750 C001 Mean Dynamic Topography (1) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 1: CS\_OFFL\_SIR\_IOPN\_2\_20230610T171324\_20230610T171400\_C001 Total Geocentric Ocean Tide (GOT) GOT) for one or more records There is an error with the Mean Dynamic Topography height (solution 1) CS OFFL SIR IOPN 2 20230610T180530 20230610T180655 C001 Mean Dynamic Topography (1) for one or more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T181220\_20230610T181532\_C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height (solution 1) CS\_OFFL\_SIR\_IOPN\_2\_20230610T194508\_20230610T194622\_C001 Mean Dynamic Topography (1) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS\_OFFL\_SIR\_IOPN\_2\_20230610T195119\_20230610T195442\_C001 Topography (1) Topography height (solution 1)

CS_OFFL_SIR_IOPN_2_20230610T212556_20230610T212832_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_20230610T213025_20230610T213652_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_20230610T221412_20230610T221551_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_20230610T222110_20230610T222230_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_20230610T230114_20230610T230725_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_20230610T235344_20230610T235401_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_20230610T004502_20230610T005105_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_20230610T022653_20230610T023039_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_20230610T040605_20230610T040908_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_20230610T041018_20230610T041122_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_20230610T054427_20230610T055215_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_20230610T072428_20230610T073327_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_20230610T090402_20230610T091133_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_20230610T104313_20230610T104834_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_20230610T122208_20230610T122533_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_20230610T122533_20230610T122753_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_20230610T140030_20230610T140058_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_20230610T140158_20230610T140540_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_20230610T140616_20230610T140840_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPR_2_20230610T153723_20230610T154448_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_20230610T171648_20230610T172334_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_20230610T173344_20230610T173531_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_20230610T185400_20230610T190213_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_20230610T190213_20230610T190341_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_20230610T190957_20230610T191131_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_20230610T203432_20230610T204112_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_20230610T204112_20230610T204228_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_20230610T221552_20230610T222001_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_20230610T222001_20230610T222110_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_20230610T224330_20230610T224544_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_IOPR_2_20230610T235605_20230610T235754_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_20230610T235754_20230611T000029_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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230610T053610_20230610T053802_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

CS_OFFL_SIR_IOPM_2_20230610T071322_20230610T071502_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM_2_20230610T191158_20230610T191305_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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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20230610T000032_20230610T000503_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_20230610T000749_20230610T002152_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_20230610T010029_20230610T010611_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_20230610T010855_20230610T013219_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_20230610T013533_20230610T014406_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_20230610T014729_20230610T021158_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_20230610T024558_20230610T031112_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_20230610T032626_20230610T035207_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_20230610T035210_20230610T035519_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_20230610T041832_20230610T044950_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_20230610T045700_20230610T050246_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_20230610T050529_20230610T051028_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_20230610T055550_20230610T062917_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_20230610T063606_20230610T064118_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_20230610T064502_20230610T070234_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_20230610T072055_20230610T072143_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_20230610T073328_20230610T080306_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_20230610T080317_20230610T080805_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_20230610T082505_20230610T084956_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_20230610T085126_20230610T085814_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_20230610T085814_20230610T085855_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_20230610T091133_20230610T091743_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_20230610T091758_20230610T093345_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_20230610T093549_20230610T094059_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_20230610T094132_20230610T094724_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_20230610T094944_20230610T095506_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_20230610T095525_20230610T095739_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_20230610T100616_20230610T101654_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_20230610T102008_20230610T103026_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_20230610T103038_20230610T103704_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_20230610T105838_20230610T110741_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_20230610T110743_20230610T110941_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_20230610T111445_20230610T112622_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_20230610T112911_20230610T113406_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_20230610T113443_20230610T113601_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_20230610T114248_20230610T114702_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_20230610T115211_20230610T115245_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_20230610T120030_20230610T121307_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_20230610T124032_20230610T124034_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_20230610T125048_20230610T130521_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_20230610T130848_20230610T131321_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_20230610T131323_20230610T131336_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_20230610T132048_20230610T134636_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_20230610T142000_20230610T144027_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_20230610T144045_20230610T144448_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_20230610T144844_20230610T145235_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_20230610T145257_20230610T145622_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_20230610T145948_20230610T152620_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_20230610T155613_20230610T162418_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

Backscatter Quality  CS_OFFL_SIR_IOPM_2_20230610T163948_20230610T171324_C001  CS_OFFL_SIR_IOPM_2_20230610T163948_20230610T171324_C001  CS_OFFL_SIR_IOPM_2_20230610T174944_20230610T175059_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  Backscatter Quality  CCGA Altimeter Range, SSHA, SWH and Backscatter Quality  CCean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CCEAN Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  The Ocean Altimeter Range Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CCEAN Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH	r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been ecords  r Range and Backscatter Quality Flags have been set rds  r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been records  r Range, SSHA, SWH and Backscatter Quality Flags have been records  r Range, SSHA, SWH and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPM_2_20230610T163948_20230610T171324_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CS_OFFL_SIR_IOPM_2_20230610T174944_20230610T175059_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T180204_20230610T180314_C001  and Backscatter Quality, OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality  Coean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CS_OFFL_SIR_IOPM_2_20230610T180204_20230610T180314_C001  COEAN Altimeter Range, SSHA, SWH and Backscatter Quality  COEAN Altimeter Range, SSHA, SWH and Backscatter Quality  The OCean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  COEAN Altimeter Range and	neter Range and Backscatter Quality Flags have been ecords  r Range and Backscatter Quality Flags have been set ords  r Range, SSHA, SWH and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags have been ecords
Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T180204_20230610T180314_C001  Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range and Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records  r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags leter Range and Backscatter Quality Flags leter Range and Backscatter Quality Flags lave been
CS_OFFL_SIR_IOPM_2_20230610T175221_20230610T175558_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  CS_OFFL_SIR_IOPM_2_20230610T180204_20230610T180314_C001  and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality  CCean Altimeter Range, SSHA, SWH and Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG  CCean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG  Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	neter Range and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20230610T175816_20230610T180004_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more r  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG  and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG	neter Range and Backscatter Quality Flags have been ecords  r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20230610T180204_20230610T180314_C001 and Backscatter Quality, OCOG and the OCOG Altim	neter Range and Backscatter Quality Flags have been
	ecords
CS_OFFL_SIR_IOPM_2_20230610T180655_20230610T181220_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been ecords
	r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been records
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPM_2_20230610T194622_20230610T195119_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPM_2_20230610T212832_20230610T213025_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPM_2_20230610T222231_20230610T222528_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
	r Range, SSHA, SWH and Backscatter Quality Flags leter Range and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPM_2_20230610T230726_20230610T230938_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
CS_OFFL_SIR_IOPM_2_20230610T231021_20230610T231439_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
	r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been records
	r Range, SSHA, SWH and Backscatter Quality Flags neter Range and Backscatter Quality Flags have been records
CS_OFFL_SIR_IOPN_2_20230610T085932_20230610T090154_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
CS_OFFL_SIR_IOPN_2_20230610T113436_20230610T113443_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds
CS_OFFL_SIR_IOPN_2_20230610T144619_20230610T144844_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter for one or more reco	r Range and Backscatter Quality Flags have been set rds

CS_OFFL_SIR_IOPN_2_20230610T145251_20230610T145257_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_IOPR_2_20230610T004502_20230610T005105_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_20230610T090402_20230610T091133_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_20230610T093451_20230610T093549_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_20230610T114702_20230610T114824_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_20230610T130522_20230610T130650_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_20230610T154636_20230610T154907_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_20230610T180004_20230610T180204_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_20230610T204729_20230610T205422_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.

Number of products with errors:

111

Product	Test Failed	Description			
CS_OFFL_SIR_IOPN_2_20230610T003159_20230610T003258_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_20230610T005106_20230610T005325_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_20230610T005602_20230610T005638_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_20230610T005859_20230610T010022_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_20230610T014406_20230610T014555_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_20230610T021158_20230610T021552_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_20230610T023039_20230610T023520_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_20230610T023608_20230610T023729_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_20230610T024131_20230610T024329_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_20230610T032206_20230610T032453_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_20230610T040908_20230610T041017_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_20230610T045312_20230610T045700_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_20230610T050247_20230610T050403_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_20230610T053418_20230610T053441_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_20230610T053853_20230610T054015_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_20230610T054336_20230610T054427_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_20230610T055215_20230610T055334_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_20230610T055415_20230610T055550_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_20230610T063250_20230610T063606_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_20230610T064118_20230610T064239_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_20230610T070234_20230610T070508_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_20230610T071314_20230610T071322_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_20230610T072234_20230610T072428_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_20230610T080306_20230610T080317_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_20230610T081007_20230610T081415_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_20230610T082027_20230610T082137_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_20230610T085932_20230610T090154_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_20230610T090242_20230610T090402_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_20230610T095739_20230610T095924_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_20230610T103704_20230610T104117_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_20230610T104153_20230610T104313_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_20230610T105614_20230610T105838_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_20230610T113436_20230610T113443_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_20230610T113601_20230610T113958_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_20230610T121307_20230610T121430_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_20230610T121649_20230610T121728_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_20230610T121742_20230610T122208_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_20230610T122753_20230610T122936_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_20230610T131515_20230610T131841_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_20230610T135428_20230610T135551_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_20230610T135640_20230610T140030_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_20230610T141753_20230610T141959_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 CPR, SR IDPN 2 202089/117/302 2020810710702 CDD  CD CPR, SR IDPN 2 202089/117/302 2020810710703 CDD  CD CPR, SR IDPN 2 202089/117/302 202080/117/302 CDD  CD CPR, SR IDPN 2 202089/117/302 202080/107/302 CDD  CD CPR, SR IDPN 2 202089/117/302 202080/107/302 CDD  CD CPR, SR IDPN 2 202089/117/302 CDD  CD CPR, SR IDPN 2 202						
0.0000   Absolute Plancy   Absolute Online   A	CS_OFFL_SIR_IOPN_2_20230610T145622_20230610T145750_C001					
0.000 Secretar Cashly Purp.  1. COOD American Rays Chairly Purp.  1. COOD American Ra	CS_OFFL_SIR_IOPN_2_20230610T162539_20230610T162702_C001		, ,			
CRITICATION	CS_OFFL_SIR_IOPN_2_20230610T171524_20230610T171648_C001					
CS_OPTL_SR_DPN_2_accessor (Treat) =	CS_OFFL_SIR_IOPN_2_20230610T174625_20230610T174728_C001					
CS_CRE_SR_IOPN_2_0000018T190115_282888107189480_001  CS_CRE_SR_IOPN_2_0000018T190115_282888107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_282888107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_28288107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_282888107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_28288107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_28288107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_28288107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_28288107189480_001  CS_CRE_SR_IOPN_2_0000018T19015_2828	CS_OFFL_SIR_IOPN_2_20230610T180530_20230610T180655_C001					
So CPFL_SRI_CPPL_2.0028610T104869_2028610T104862_C001  SR_CPFL_SRI_CPPL_2.0028610T104869_2028610T104862_C001  SR_CPFL_SRI_CPPL_2.0028610T104869_2028610T104462_C001  SR_CPFL_SRI_CPPL_2.0028610T104869_2028610T104462_C001  SR_CPFL_SRI_CPPL_2.0028610T104869_2028610T104462_C001  SR_CPFL_SRI_CPPL_2.0028610T104869_2028610T104462_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_2028610T104469_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_2028610T104469_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_2028610T104469_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_2028610T104469_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_2028610T104469_C001  SR_CPFL_SRI_CPPL_2.0028610T104469_C001  S	CS_OFFL_SIR_IOPN_2_20230610T191131_20230610T191158_C001					
SS_OFFL.SIR_OPN_2_R02000197194402_0001  ABSOCRAFIES PLANCOGG Allement Plancy SSIR_SWIN  ABSOCRAFIES PLANCOGG ALLEMENT PL	CS_OFFL_SIR_IOPN_2_20230610T192115_20230610T192426_C001					
SS_OFFL_SIR_IOPN_2_202386107109842_20236107109447_C001 Allmorer Fange and Backscatter Coulty Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107204228_202366107109447_C001 Ces. Affaired Fange Coulty Flags SSIA_SWI and Ces. Affaired Fange and Backscatter Coulty Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107204228_202366107109447_C001 Ces. Affaired Fange Coulty Flags SSIA_SWI and Ces. Affaired Fange and Backscatter Coulty Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107229229_2001 Ces. Affaired Fange Coulty Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_20238610722925_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_20238610722925_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_20238610702010720725_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_20238610702010720725_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_20238610702010720725_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107020205_202306107030582_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107030592_202306107030592_C001 Ces. Affaired Fange County Flags No. County Flags have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107030592_202306107030592_C001 Ces. Affaired Fange County Flags No. County Flags Have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107030592_202306107030592_C001 Ces. Affaired Fange County Flags No. County Flags Have been set for one or non-encodes Ces. OFFL_SIR_IOPN_2_202386107030592_202306107030592_C001 Ces. OFFL_SIR_IOPN_2_202386107030592_202306107030593_C001 Ces. Affaired Fange County Flags No. County Fla	CS_OFFL_SIR_IOPN_2_20230610T194508_20230610T194622_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
SS_OFFL_SIR_LOPN_2_202306107204282_202306107129552_0001  CS_OFFL_SIR_LOPN_2_202306107295082_202306107129552_0001  CS_OFFL_SIR_LOPN_2_202306107295082_202306107129552_0001  CS_OFFL_SIR_LOPN_2_202306107295082_202306107129552_0001  CS_OFFL_SIR_LOPN_2_202306107029508_2023061071297272_0001  CS_OFFL_SIR_LOPN_2_202306107029508_202306107129722_0001  CS_OFFL_SIR_LOPN_2_202306107029508_202306107029508_0001  CS_OFFL_SIR_LOPN_2_202306107029508_20001  CS_OFFL_SIR_LOPN_2_202306107029508_20001  CS_OFFL_SIR_LOPN_2_202306107029508_20001  CS_OFFL_SIR_LOPN_2_202306107029508_20001  CS_OFFL_SIR_LOPN_2_202306107029508_20001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610703508_0001  CS_OFFL_SIR_LOPN_2_20230610704062_20200610703508_0	CS_OFFL_SIR_IOPN_2_20230610T195119_20230610T195442_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
OCOS Backscatter Quality PLM, OCOS B	CS_OFFL_SIR_IOPN_2_20230610T204228_20230610T204407_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003942_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003945_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003945_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T003935_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T003935_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T023035_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T023035_C001  CS_OFFL_SIR_IOPR_2_20230610T00393_20230610T023035_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CS_OFFL_SIR_IOPR_2_20230610T003112_D003068_C001  CCCCA Altimeter Range Calably PLRM, COCC	CS_OFFL_SIR_IOPN_2_20230610T213025_20230610T213652_C001					
and Backscatter Quality PLRM. OCOS Allimeter Range and Backscatter Quality Plags have been set for one or more records  S_OFFL_SIR_IOPR_2_202306107002182_202306107003942_C001  CCCG Allimeter Range Cuality PLRM. OCOS Allimeter Range and Backscatter Quality Plags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags and the COCG Allimeter Range SPMA_SWH and Backscatter Quality Flags and the COCG Allimeter Range SPMA_SWH and Backscatter Quality Flags and the COCG Allimeter Range SPMA_SWH and Backscatter Quality Flags and the COCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags and the COCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or or more records  CCCG Allimeter Range SPMA_SWH and Backscatter Quality Flags have been set for one or more records  CCCG Allimeter R	CS_OFFL_SIR_IOPN_2_20230610T222528_20230610T222722_C001					
CS_OFFL_SIR_JOPR_2_20230610T002835_20230610T003845_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003845_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T003826_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T005836_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T005836_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T005836_20230610T003850_C001  CS_OFFL_SIR_JOPR_2_20230610T03219_20230610T013345_C001  CS_OFFL_SIR_JOPR_2_20230610T03219_20230610T013345_C001  CS_OFFL_SIR_JOPR_2_20230610T03219_20230610T013345_C001  CS_OFFL_SIR_JOPR_2_20230610T032222_20230610T03345_C001  CS_OFFL_SIR_JOPR_2_20230610T032222_20230610T03345_C001  CS_OFFL_SIR_JOPR_2_20230610T032332_C001  CS_OFFL_SIR_JOPR_2_20230610T0323512_20230610T033342_C001  CS_OFFL_SIR_JOPR_2_20230610T0303512_20230610T033342_C001  CS_OFFL_SIR_JOPR_2_20230610T0303512_20230610T0303526_C001  CCC_OFFL_SIR_JOPR_2_20230610T0303512_20230610T0303526_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T040062_20230610T040966_C001  CCC_OFFL_SIR_JOPR_2_20230610T04	CS_OFFL_SIR_IOPN_2_20230610T230114_20230610T230725_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
OCOG Backscatter Quality PLRM,	CS_OFFL_SIR_IOPR_2_20230610T002152_20230610T002636_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
OCG Backscatter Quality PLRM. CS_OFFL_SIR_IOPR_2_20230610T004502_20230610T005105_C001  CS_OFFL_SIR_IOPR_2_20230610T004502_20230610T005859_C001  CS_OFFL_SIR_IOPR_2_20230610T004502_20230610T005859_C001  CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001  CS_OFFL_SIR_IOPR_2_20230610T013219_2001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022309_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T02309_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T033342_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T040925_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040925_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_202	CS_OFFL_SIR_IOPR_2_20230610T002935_20230610T003042_C001					
and Backscatter Quality PLRM, COOG Altimeter Range and Backscatter Quality PLRM COOG Altimeter Range and Backscatter Quality PLRM COOG Altimeter Range and Backscatter Quality PLRM, COCG Altimeter Range and Backscatter Quality PLRM, COCG Backscatter Quality PLRM, COCG Altimeter Range and Ba	CS_OFFL_SIR_IOPR_2_20230610T003828_20230610T003850_C001					
CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001  CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001  CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001  CS_OFFL_SIR_IOPR_2_20230610T014555_20230610T014729_C001  CS_OFFL_SIR_IOPR_2_20230610T014555_20230610T014729_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T014729_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T031312_20230610T03334_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T040251_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040055_20230610T040086_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040098_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040098_C001  CS_OFFL_SIR_IOPR_2_20230610T040065_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T040065_2	CS_OFFL_SIR_IOPR_2_20230610T004502_20230610T005105_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001  Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_IOPR_2_20230610T014555_20230610T014729_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040055_20230610T040055_20230610T040058_C001  CS_OFFL_SIR_IOPR_2_20230610T040055_20230610T040058_C001  CS_OFFL_SIR_IOPR_2_20230610T040055_20230610T040058_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T040055_2023	CS_OFFL_SIR_IOPR_2_20230610T005638_20230610T005859_C001		, ,			
and Backscatter Quality PLRM, COG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T040251_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_	CS_OFFL_SIR_IOPR_2_20230610T013219_20230610T013345_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  CS_OFFL_SIR_IOPR_2_20230610T0315519_20230610T035526_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040251_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040908_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T0411122_C001  CS_OFFL_SIR_IOPR_2_20230610T0	CS_OFFL_SIR_IOPR_2_20230610T014555_20230610T014729_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
And Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T031312_20230610T031324_C001  Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040052_20230610T040052_C001  CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T04008_C001  CS_OFFL_SIR_IOPR_2_20230610T040065_20230610T04008_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  And Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T040065_20230610T04008_C001  Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T040605_20230610T04008_C001  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001  And Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T0411122_C001  And Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T0411122_C001  And Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T0411122_C001  And Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T0411122_C001	CS_OFFL_SIR_IOPR_2_20230610T022222_20230610T022449_C001	OCOG Altimeter Range Quality PLRM,				
CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001  OCG Altimeter Range Quality PLRM, OCOG Backscatter	CS_OFFL_SIR_IOPR_2_20230610T022653_20230610T023039_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T040251_C001  OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Range and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPR_2_20230610T031112_20230610T031324_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
OCOG Backscatter Quality  Ocoan Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags Altimeter Range and Backscatter Quality Flags Altimeter Range and Backscatter Quality Flags Altimeter Range Altimeter R	CS_OFFL_SIR_IOPR_2_20230610T035519_20230610T035526_C001	OCOG Altimeter Range Quality PLRM,				
and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and Backscatter Qual	CS_OFFL_SIR_IOPR_2_20230610T040052_20230610T040251_C001					
Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been less for one or more records.	CS_OFFL_SIR_IOPR_2_20230610T040605_20230610T040908_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			
	CS_OFFL_SIR_IOPR_2_20230610T041018_20230610T041122_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been			

CS_OFFL_SIR_IOPR_2_20230610T044950_20230610T045311_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been
	PLRM	set for one or more records  The OCOC Bases and Real/agetter Quality Flags have been set for one
CS_OFFL_SIR_IOPR_2_20230610T051937_20230610T052311_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_20230610T054427_20230610T055215_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_20230610T055334_20230610T055415_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_20230610T071300_20230610T071303_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_20230610T072428_20230610T073327_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_20230610T080805_20230610T081007_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_20230610T090402_20230610T091133_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_20230610T093451_20230610T093549_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_20230610T094725_20230610T094815_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_20230610T104313_20230610T104834_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_20230610T110941_20230610T111444_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_20230610T114702_20230610T114824_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_20230610T115443_20230610T120010_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_20230610T122208_20230610T122533_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_20230610T122533_20230610T122753_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_20230610T124248_20230610T125047_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_20230610T134636_20230610T134912_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_20230610T140030_20230610T140058_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_20230610T140158_20230610T140540_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_20230610T140616_20230610T140840_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_20230610T145750_20230610T145947_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_20230610T153723_20230610T154448_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_20230610T163655_20230610T163948_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_20230610T171648_20230610T172334_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_20230610T172851_20230610T173004_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_20230610T173629_20230610T173809_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_20230610T180315_20230610T180530_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_20230610T181532_20230610T181905_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_20230610T185400_20230610T190213_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_20230610T194141_20230610T194507_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_20230610T195442_20230610T195815_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_20230610T203432_20230610T204112_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_20230610T204112_20230610T204228_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_20230610T204407_20230610T204536_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_20230610T204546_20230610T204648_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_20230610T211858_20230610T212556_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

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

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

> 1 Hz and 1 Hz Ocean SSHA Quality Flags: These flags are currently set for products over sea ice, which is to be expected. The number of products with this error flag set is given below.

Number of products with errors:

## 5.8 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20 Hz)

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

> Ocean Retracking Quality Flag: This flag is currently set for products 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:

# L2 Retracking Flags (20 Hz PLRM)

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

> Ocean Retracking Quality Flag (PLRM): This flag is currently set for products IOPR and IOPN products over 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: 15

# 6. IOP L2 Pole-to-Pole Data Quality Check

## 6.1 P2P 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:

### 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 inconsistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors:

### 6.3 P2P 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.

Number of products with errors:

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

Number of products with errors:

Product Test Failed Description

CS_OFFL_SIR_IOP_2_20230609T235929_20230610T004907_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_IOP_2_20230610T004907_20230610T013843_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_IOP_2_20230610T013843_20230610T022821_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_IOP_2_20230610T022821_20230610T031758_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_IOP_2_20230610T031758_20230610T040736_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_IOP_2_20230610T040736_20230610T045713_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_IOP_2_20230610T045713_20230610T054651_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_IOP_2_20230610T054651_20230610T063627_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_IOP_2_20230610T063627_20230610T072605_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_IOP_2_20230610T072605_20230610T081542_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_IOP_2_20230610T081542_20230610T090520_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20230610T090520_20230610T095457_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_IOP_2_20230610T095457_20230610T104434_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20230610T104434_20230610T113411_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_IOP_2_20230610T113411_20230610T122349_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_IOP_2_20230610T122349_20230610T131326_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_IOP_2_20230610T131326_20230610T140304_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_IOP_2_20230610T140304_20230610T145241_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_IOP_2_20230610T145241_20230610T154218_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_IOP_2_20230610T154218_20230610T163155_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_IOP_2_20230610T163155_20230610T172133_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_IOP_2_20230610T172133_20230610T181110_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_IOP_2_20230610T181110_20230610T190048_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_IOP_2_20230610T190048_20230610T195025_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_IOP_2_20230610T195025_20230610T204002_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_IOP_2_20230610T204002_20230610T212939_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_IOP_2_20230610T212939_20230610T221917_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_IOP_2_20230610T221917_20230610T230854_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_IOP_2_20230610T230854_20230610T235832_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_IOP_2_20230610T235832_20230611T004808_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)

# 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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220230610T045713_20230610T054651_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOP_220230610T063627_20230610T072605_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOP_220230610T190048_20230610T195025_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

### 6.6 P2P Measurement Quality Flag Check

#### 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 given below.

Number of products with errors: 29

#### 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 given below.

Number of products with errors: 3

#### 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:

### 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:

# 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	ĺ
SIR_IOPM1B	156	156	3	153	0	ĺ
SIR_IOPR1B	132	104	2	102	0	ı
SIR_IOPN1B	104	132	0	132	0	ı
SIR_IOPM_2	156	156	103	53	0	ı
SIR_IOPR_2	132	104	38	66	0	ı
SIR_IOPN_2	104	132	50	81	1	
SIR IOP P2P	29	29	0	28	1	ĺ

# 7.1 QCC Errors

Number of QCC reports with errors:

8

Total number of occurrences of each error

Product Type R	LOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOPR_2	1	1	1	1							
Product Type R	LOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2_	1	1	1	1							

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

# 7.2 QCC Warnings

Number of QCC reports with warnings

2200

Total number of occurrences of each warning

Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_IOPM1B	153	0	0	0	0	0	0
SIR_IOPM_2	0	0	41	39	0	40	0
SIR_IOPN1B	102	0	0	0	0	0	0
SIR_IOPN_2	0	0	8	31	5	26	27
SIR_IOPR1B	126	0	0	0	0	0	0
SIR IOPR 2	0	1	38	45	2	32	26

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO	CERPEPOPFDPLRMSINNO	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	36	1	34	0	0	0	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	20	2	0	0	26	0	33
SIR_IOPR1B	0	0	0	0	0	0	0
SIR IOPR 2	14	6	0	46	0	57	0

Donalous Trees	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
Product Type	RPEPOPLRIVINCOF	RPEPOPSARNODE	RPEPOPSINNCDF	HOODCONCDF	ROSHAUFUNCUF	RSSHAUFDPLRWINCDF	ROSHAUNCUF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	28	0	0	4	29	0	7
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	0	29	19	45	55	25
SIR_IOPR1B	0	0	0	0	0	0	0
SIR IOPR 2	0	47	0	1	61	37	12

	Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
ſ	SIR_IOPM1B	0	0	0	1	0	0	0
	SIR_IOPM_2	33	0	2	1	0	0	0
	SIR IOPN1B	0	0	0	0	0	47	2

SIR_IOPN_2	27	31	12	0	1	0	0
SIR_IOPR1B	0	0	0	0	0	132	7
SIR_IOPR_2	32	46	1	0	3	0	0
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCI	RBSZOPOEPNCDF
SIR_IOP_2_	10	29	29	6	29	16	29
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNC	DIRPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_IOP_2_	8	18	29	RPEPOPSINNCDF 23	RSSBCONCDF 17		20
				23			
SIR_IOP_2_	8	18	29	23	17		
SIR_IOP_2_ Product Type	8 RSSHAONCDF	18 RSWHOEPFDNCDF	29  RSWHOEPFDPLRMNCDF	23 RSWHOEPNCDF	17 SPHLPQWNCDF		
SIR_IOP_2_ Product Type	8 RSSHAONCDF	18 RSWHOEPFDNCDF	29  RSWHOEPFDPLRMNCDF	23 RSWHOEPNCDF	17 SPHLPQWNCDF		

Test Description Key:							
Abbreviation	Test name	Details					
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter					
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)					
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees					
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees					
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only					
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
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					
RSWHOEPFDPLRMN CDF	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