

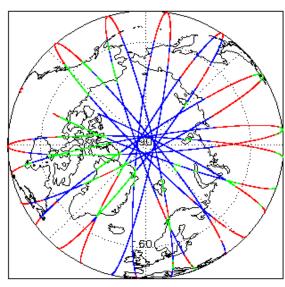
# 1. Overview

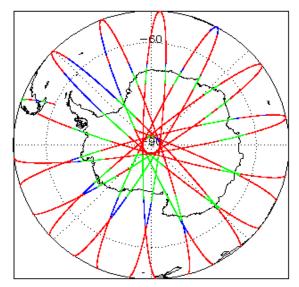
Report Production:	05-Jun-2020		
Processor Used:	CryoSat Ocean Processor		
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data		

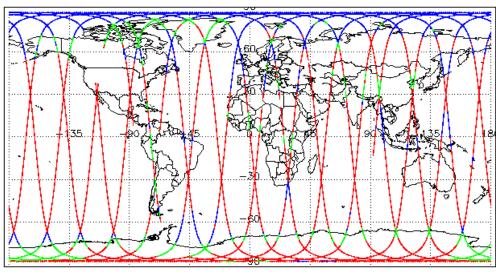
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
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

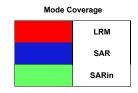
Mission / Instru	Mission / Instrument News	
12-Mar-2020	None	
13-Mar-2020	None	
14-Mar-2020	Nothing planned	

# 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 binary product file (.DBL).

#### 4.2 L1B Product Header Analysis

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

L1B Processing Quality HR: The I1b\_proc\_flag\_hr flag is currently set all L1B IOPR and IOPN products because the I1b\_processing\_quality\_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

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:

Ω

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. This is being investigated and will be updated in the next SW update.

Number of products with errors:

#### 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

Number of products with errors:

18

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20200313T035647_20200313T040454_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20200313T095301_20200313T100225_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T043132_20200313T043450_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T052246_20200313T052341_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T093342_20200313T093521_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T101928_20200313T102037_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T115845_20200313T120438_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T164803_20200313T164905_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T201026_20200313T201135_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T210455_20200313T210648_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T214832_20200313T215049_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200313T232416_20200313T232928_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T034345_20200313T034846_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T150756_20200313T151010_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T151052_20200313T152054_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T163853_20200313T163936_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T170353_20200313T170420_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200313T182414_20200313T183102_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 binary product file (.DBL).

Number of products with errors:

0

### 5.2 L2 Product Header Analysis

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

Number of products with errors:

## 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

# 5.4 L2 Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric 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.

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20200313T035647_20200313T040454_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_IOPM_2_20200313T125354_20200313T131917_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPM_2_20200313T135052_20200313T141946_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPM_2_20200313T203921_20200313T204234_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_IOPN_2_20200313T001558_20200313T001950_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_20200313T002507_20200313T002539_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T010544_20200313T010817_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_20200313T011536_20200313T011720_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_20200313T025435_20200313T025611_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T043132_20200313T043450_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_20200313T060400_20200313T060518_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_20200313T061027_20200313T061338_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_IOPN_2_20200313T074454_20200313T074731_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_20200313T074931_20200313T075503_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_20200313T084024_20200313T084511_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_20200313T092403_20200313T092639_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_20200313T101928_20200313T102037_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_20200313T115845_20200313T120438_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_20200313T124131_20200313T124319_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T125130_20200313T125353_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T142059_20200313T142240_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T152054_20200313T152508_C001	Mean Sea Surface (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20200313T163936_20200313T164111_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T174019_20200313T174340_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_20200313T174853_20200313T175017_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T183102_20200313T183227_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_20200313T192754_20200313T192902_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20200313T201026_20200313T201135_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_20200313T210455_20200313T210648_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_20200313T214832_20200313T215049_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_20200313T232416_20200313T232928_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_20200313T001951_20200313T002506_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_20200313T015746_20200313T020804_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_20200313T033547_20200313T034320_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_20200313T035235_20200313T035432_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20200313T051053_20200313T052123_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_20200313T052123_20200313T052246_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_20200313T065307_20200313T070022_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_20200313T070022_20200313T070448_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_20200313T083457_20200313T083914_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_20200313T083914_20200313T084023_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_20200313T101250_20200313T101516_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20200313T101516_20200313T101928_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_20200313T115215_20200313T115844_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_20200313T133405_20200313T133856_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_20200313T151052_20200313T152054_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_20200313T165059_20200313T165947_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_20200313T183227_20200313T184002_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_20200313T184043_20200313T184231_C001	Total Geocentric Ocean Tide (FES), Non Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_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_20200313T212616_20200313T212830_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_20200313T215049_20200313T215747_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_20200313T232928_20200313T233537_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:

C

# 5.6 L2 Measurement Quality Flag Check

# L2 Quality Flags (20Hz)

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.

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20200313T004047_20200313T010152_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.
		The Ocean Altimeter Range, SSHA, SWH 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_20200313T010817_20200313T011146_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

	1	
CS_OFFL_SIR_IOPM_2_20200313T011209_20200313T011536_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_20200313T011755_20200313T014700_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_20200313T021724_20200313T024430_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_20200313T024600_20200313T025100_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_20200313T025107_20200313T025435_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_20200313T025724_20200313T033228_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_20200313T034846_20200313T035120_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_20200313T035647_20200313T040454_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_20200313T041748_20200313T042418_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_20200313T042558_20200313T043131_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_20200313T043643_20200313T051052_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_20200313T054403_20200313T060340_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_20200313T060519_20200313T061027_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_20200313T061548_20200313T065028_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_20200313T065238_20200313T065242_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_20200313T071507_20200313T071928_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_20200313T072023_20200313T073759_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_20200313T074101_20200313T074205_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_20200313T074731_20200313T074930_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_20200313T075619_20200313T081133_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_20200313T081833_20200313T082543_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_20200313T084544_20200313T090320_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_20200313T090448_20200313T091846_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_20200313T092639_20200313T092840_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_20200313T092945_20200313T093342_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_20200313T093521_20200313T095100_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

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

CS_OFFL_SIR_IOPM_2_20200313T203921_20200313T204234_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_20200313T204245_20200313T205540_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_20200313T205720_20200313T210237_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_20200313T210256_20200313T210454_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_20200313T211318_20200313T212616_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_20200313T212830_20200313T214027_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_20200313T214323_20200313T214401_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_20200313T215801_20200313T215821_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_20200313T220753_20200313T221819_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_20200313T221958_20200313T223457_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_20200313T223645_20200313T224148_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_20200313T224212_20200313T224327_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_20200313T225321_20200313T225550_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_20200313T225902_20200313T230216_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_20200313T230936_20200313T231208_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_20200313T231331_20200313T232037_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_20200313T233644_20200313T234141_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_20200313T234853_20200313T235431_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_20200313T235452_20200314T001352_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20200313T104128_20200313T104135_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20200313T124527_20200313T124555_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20200313T232043_20200313T232205_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20200313T234536_20200313T234853_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_20200313T025612_20200313T025724_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_20200313T084512_20200313T084544_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_20200313T101516_20200313T101928_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_20200313T133237_20200313T133333_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS OFFE SIR IOPR 2 202003131204235 202003131204245 C001	3	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

# L2 Quality Flags (20Hz 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: 75		
Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20200313T001558_20200313T001950_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_20200313T003652_20200313T004012_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_20200313T010544_20200313T010817_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_20200313T020814_20200313T020921_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_20200313T025435_20200313T025611_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_20200313T040454_20200313T040828_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_20200313T043132_20200313T043450_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_20200313T052246_20200313T052341_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_20200313T054223_20200313T054403_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_20200313T071928_20200313T072023_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_20200313T074931_20200313T075503_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_20200313T084024_20200313T084511_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_20200313T093342_20200313T093521_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_20200313T100225_20200313T100510_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_20200313T110221_20200313T110443_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_20200313T113954_20200313T114332_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_20200313T115845_20200313T120438_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_20200313T124131_20200313T124319_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_20200313T133857_20200313T134304_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_20200313T142059_20200313T142240_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_20200313T142347_20200313T142527_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_20200313T143124_20200313T143246_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_20200313T152054_20200313T152508_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_20200313T160106_20200313T160437_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_20200313T162848_20200313T163017_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_20200313T165947_20200313T170131_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_20200313T170254_20200313T170352_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_20200313T174853_20200313T175017_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_20200313T181035_20200313T181358_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_20200313T183102_20200313T183227_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_20200313T205541_20200313T205720_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_20200313T214832_20200313T215049_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_20200313T220428_20200313T220753_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_20200313T230217_20200313T230738_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_20200313T232043_20200313T232205_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_20200313T232416_20200313T232928_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_20200313T001951_20200313T002506_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_20200313T015746_20200313T020804_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_20200313T033401_20200313T033405_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_20200313T033410_20200313T033442_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_20200313T033547_20200313T034320_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_20200313T034345_20200313T034846_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_20200313T051053_20200313T052123_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_20200313T052713_20200313T053031_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_20200313T053229_20200313T053548_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_20200313T065307_20200313T070022_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_20200313T070022_20200313T070448_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.

Dec. 2011; 381; 1094; 2.000013110019; 2.0000131110019; 2.000013111	CS_OFFL_SIR_IOPR_2_20200313T074205_20200313T074453_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.
Company	CS_OFFL_SIR_IOPR_2_20200313T082544_20200313T082731_C001	OCOG Altimeter Range Quality PLRM,	, ,
Description	CS_OFFL_SIR_IOPR_2_20200313T082736_20200313T083032_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFF_SR_JOPS_2_2000013T1050_2000013T105149_0001   CS_OFF_SR_JOPS_2_2000013T1050_2000013T10519_0001   CS_OFF_SR_JOPS_2_2000013T1050_2000013T10519_0001   CS_OFF_SR_JOPS_2_2000013T1050_2000013T10519_0001   CS_OFF_SR_JOPS_2_2000013T1050_20000013T1050_2000013T1050_2000013T1050_2000013T1050_2000013T1050_20000013T1050_2000013T1050_2000013T1050_2000013T1050_2000013T1050_20000013T1050_20000013T1050_2000013T1050_2000013T1050_2000013T1050_2000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_20000013T1050_200000013T1050_200000013T1050_20000000000000000000000000000000000	CS_OFFL_SIR_IOPR_2_20200313T083457_20200313T083914_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFF_SIR_DORG_2,0000313110032 [2000313110778_000]  CS_OFF_SIR_DORG_2,0000313110032 [2000313110778_000]  CS_OFF_SIR_DORG_2,0000313110032 [2000313110032 [2001]  CS_OFF_SIR_DORG_2,0000313110032 [2000313110032 [2000]  CS_OFF_SIR_DORG_2,0000313110032 [2000313110032 [2000313110032 [2000]  CS_OFF_SIR_DORG_2,0000313110032 [200031311003	CS_OFFL_SIR_IOPR_2_20200313T091847_20200313T092403_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
California   Cal	CS_OFFL_SIR_IOPR_2_20200313T101250_20200313T101516_C001		
SB_OPFL_SR_OPFL_2.2000313T10982_2000313T10982_C001  An of Beakecaster Guality PERA. COSA. Section of Section Challey Section C	CS_OFFL_SIR_IOPR_2_20200313T102311_20200313T102738_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Section   Color   Section	CS_OFFL_SIR_IOPR_2_20200313T102832_20200313T103018_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Sg_OFFL_SIR_IOPR_2_20200313T192439_2020313T10070C_001  Advanture Range and Blackscatter Outsity Flags have been formed in the Control of the Control of the Control outsity Flags have been formed from the Control outsity Flags and Blackscatter Outsity Flags have been formed from the Control outsity Flags have been for	CS_OFFL_SIR_IOPR_2_20200313T113013_20200313T113822_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_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16252_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T16264_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T162647_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T162647_C001  CS_OFFL_SIR_JOPR_2_20200313T16262_20200313T162647_C001  CS_OFFL_SIR_JOPR_2_20200313T162642_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162642_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162642_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162644_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162644_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162646_C001  CS_OFFL_SIR_JOPR_2_20200313T162656_C001  CS_OFFL_SIR_JOPR_2_20200313T16266_C001  CS_OFFL_SIR_JOPR_2_20200313T162656_C001  CS_OFFL_SIR_JOPR_2_20200313T162656_C001  CS_OFFL_SIR_JOPR_2_20200313T162656_C001  CS_OFFL_SIR_JOPR_2_20200313T162656_C001  CS_OFFL_SIR_JOPR_2_	CS_OFFL_SIR_IOPR_2_20200313T115215_20200313T115844_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 PLRN, GOOG Allmorter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_JOPR_2_20200313T16052_20200313T162064_0001  CS_OFFL_SIR_JOPR_2_20200313T16052_20200313T162064_0001  CS_OFFL_SIR_JOPR_2_20200313T16052_20200313T162064_0001  CS_OFFL_SIR_JOPR_2_20200313T16052_20200313T160547_C001  CS_OFFL_SIR_JOPR_2_20200313T160592_20200313T160547_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160547_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160547_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T160547_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T16050_C000313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T16050_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T16050_20200313T160550_C001  CS_OFFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_JOPR_2_20200313T16050_20200313T16050_C001  CC_OGFL_SIR_J	CS_OFFL_SIR_IOPR_2_20200313T120439_20200313T120700_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_JOPR_2_20200313T161052_20200313T162064_C001  Allimeter Range and Backscatter Quality PLRM. CCS_OFFL_SIR_JOPR_2_20200313T164439_20200313T164767_C001  CS_OFFL_SIR_JOPR_2_20200313T164439_20200313T165967_C001  CS_OFFL_SIR_JOPR_2_20200313T165099_20200313T165967_C001  CS_OFFL_SIR_JOPR_2_20200313T165099_20200313T16509	CS_OFFL_SIR_IOPR_2_20200313T132952_20200313T133216_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_20200313T16909_20200313T169047_C001  CS_OFFL_SIR_IOPR_2_20200313T16909_20200313T169047_C001  CS_OFFL_SIR_IOPR_2_20200313T16909_20200313T170253_C001  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182102_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T182102_C001  CS_OFFL_SIR_IOPR_2_20200313T182415_20200313T182402_C001  CS_OFFL_SIR_IOPR_2_20200313T182055_C001  CS_OFFL_SIR_IOPR_2_20200313T182055_C001  CS_OFFL_SIR_IOPR_2_20200313T182055_C001  CS_OFFL_SIR_IOPR_2_20200313T182055_C001  CS_OFFL_SIR_IOPR_2_20200313T182055_C001  CS_OFFL_SIR_IOPR_2_20200313T120135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20182_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20182_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20182_20200313T	CS_OFFL_SIR_IOPR_2_20200313T151052_20200313T152054_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_20200313T182105_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T18210_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_2000313T183102_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T18210_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C001  CS_OFFL_SIR_IOPR_2_20200313T1820_C00313T18223_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T1201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201832_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201832_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201832_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201832_C001  CS_OFFL_SIR_IOPR_2_20200313T201401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T201401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T201401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_	CS_OFFL_SIR_IOPR_2_20200313T164439_20200313T164757_C001		
OCG Backscatter Quality  CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T182414_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T183102_C001  CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T184002_C001  CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184002_C001  CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184023_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214574_C001  CS_OFFL_SIR_IOPR_2_20200313T214574_C001  CS_OFFL_SIR_IOPR_2_20200313T214574_C001  CS_OFFL_	CS_OFFL_SIR_IOPR_2_20200313T165059_20200313T165947_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_20200313T182115_20200313T182141_C001  Alimeter Range and Backscatter Quality PLRM, OCOG Allimeter Range and Backscatter Quality PLRM and Backscatter Quality PLRM, OCOG Allimeter Range and Bac	CS_OFFL_SIR_IOPR_2_20200313T170132_20200313T170253_C001		, ,
CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T183102_C001  CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184002_C001  CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184231_C001  CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184231_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214102_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214001_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T2144001_20200313T214832_C001  C	CS_OFFL_SIR_IOPR_2_20200313T182105_20200313T182414_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. COG 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 have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T20125_20200313T204323_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214101_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215	CS_OFFL_SIR_IOPR_2_20200313T182414_20200313T183102_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_20200313T10423_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T203	CS_OFFL_SIR_IOPR_2_20200313T183227_20200313T184002_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_20200313T20135_20200313T201848_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215750_20200313T215747_C001  CCC_OFFL_SIR_IOPR_2_20200313T215750_20200313T215747_C001  CCC_OFFL_SIR_IOPR_2_20200313T21574	CS_OFFL_SIR_IOPR_2_20200313T184043_20200313T184231_C001		
and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range 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 PLRM, OCOG Altimeter Range 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 PLRM, OCOG 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 PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPR_2_20200313T201135_20200313T201848_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 PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  and Backscatter Quality PLRM, OCOG 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 and Backscatter Quality PLRM.  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  CS_OFFL_SIR_IOPR_2_20200313T215750_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_IOPR_2_20200313T215756_C001  CS_OFFL_SIR_I	CS_OFFL_SIR_IOPR_2_20200313T202125_20200313T202550_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 PLRM, OCOG Altimeter Range 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 PLRM, OCOG Altimeter Range and Backscatter Quality PLRM.  CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_C001  OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM.  The OCOG Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPR_2_20200313T214122_20200313T214323_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_20200313T215049_20200313T215747_C001  and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM  and COCG Altimeter Range and Backscatter Quality PLRM  CS_OFFL_SIR_IOPR_2_20200313T215750_20200313T215754_C001  CS_OFFL_SIR_IOPR_2_20200313T215750_20200313T215754_C001  CS_OFFL_SIR_IOPR_2_20200313T215750_20200313T215754_C001  The OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPR_2_20200313T214401_20200313T214832_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_IOPR_2_20200313T215049_20200313T215747_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_20200313T215750_20200313T215754_C001		

Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM OCOG Altimeter Range and Backscatter Quality PLRM

CS\_OFFL\_SIR\_IOPR\_2\_20200313T235432\_20200313T235452\_C001

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

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

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and

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

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

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

Number of products with errors:

# 5.8 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20Hz)

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: 56

#### L2 Retracking Flags (20Hz, 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: 13

## 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:

0

# 6.4 P2P Auxiliary Correction Error Check

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

Currently, there are some common auxiliary correction errors raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this 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.
- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20200312T233251_20200313T002231_C002	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_20200313T002231_20200313T011205_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_20200313T011205_20200313T020144_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_20200313T020144_20200313T025119_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_20200313T025119_20200313T034058_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_20200313T034058_20200313T043032_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_20200313T043032_20200313T052012_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_20200313T052012_20200313T060946_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_220200313T060946_20200313T065925_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

		l-,
CS_OFFL_SIR_IOP_220200313T065925_20200313T074859_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_220200313T074859_20200313T083839_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_220200313T083839_20200313T092813_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_220200313T092813_20200313T101752_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_220200313T101752_20200313T110726_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_220200313T110726_20200313T115706_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_220200313T115706_20200313T124640_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_220200313T124640_20200313T133619_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_220200313T133619_20200313T142554_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_220200313T142554_20200313T151533_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_220200313T151533_20200313T160507_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_220200313T160507_20200313T165447_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_220200313T165447_20200313T174421_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_220200313T174421_20200313T183400_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_220200313T183400_20200313T192334_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_IOP_220200313T192334_20200313T201314_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_220200313T201314_20200313T210248_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	Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220200313T210248_20200313T215227_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_220200313T215227_20200313T224201_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_220200313T224201_20200313T233141_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_220200313T233141_20200314T002115_C002	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:

# 6.6 P2P Measurement Quality Flag Check

## P2P Quality Flags (20Hz)

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.

Number of products with errors:

## P2P Quality Flags (20Hz 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.

Number of products with errors:

# P2P Quality Flags (1 Hz & 1Hz 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.

Number of products with errors:

30

# 6.8 P2P Ocean Retracking Quality Check

# P2P Retracking Flags (20Hz)

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.

30

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.