

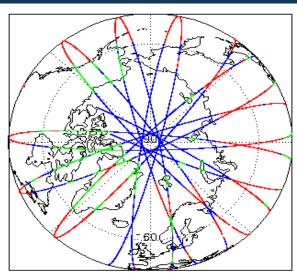
### 1. Overview

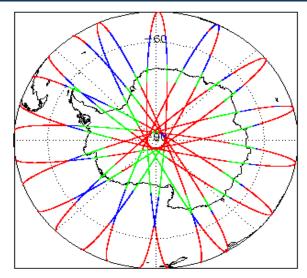
Report Production:	06-Jan-2020		
Processor Used:	CryoSat Ocean Processor		
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data		

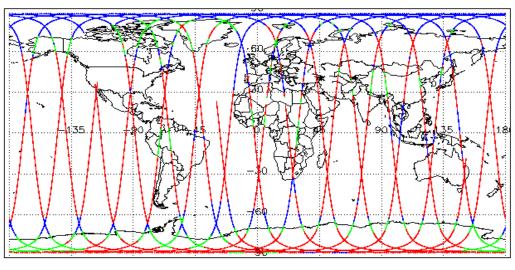
	1	
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary 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

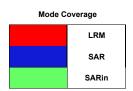
Mission / Instrument News		
None		
None		
Nothing planned		

### 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 pert 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:

0

#### 4.4 L1B Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag for each measurement record. The bit value of this flag indicates any 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. This is being investigated and will be updated in the next SW update.

Number of products with errors:

0

#### 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:

15

s missing for one or more records s missing for one or more records s missing for one or more records
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### 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:

0

### 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

CS OFFL SIR IOPN 2 20191225T233256 20191225T233412 C001

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. 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 expect
- > 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 There is an error with the Mean Dynamic Topography height for one or CS\_OFFL\_SIR\_IOPN\_2\_20191225T002218\_20191225T002405\_C001 Mean Dynamic Topography (1) 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\_20191225T010631\_20191225T010733\_C001 Topography (1) Topography height (solution 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\_20191225T020029\_20191225T020257\_C001 Topography (1) Topography height (solution 1) Total Geocentric Ocean Tide (GOT) There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean CS OFFL SIR IOPN 2 20191225T024057 20191225T024405 C001 Total Geocentric Ocean Tide (FES), No Equilibrium Long Period Ocean Tide Tide height 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 20191225T024424 20191225T024634 C001 Topography (1) Topography height (solution 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\_20191225T033934\_20191225T034334\_C001 Topography (1) Fopography height (solution 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\_20191225T042105\_20191225T042456\_C001 Topography (1) Topography height (solution 1) Mean Dynamic Topography (1), Total There is an error with the Mean Dynamic Topography (solution 1) and the CS\_OFFL\_SIR\_IOPN\_2\_20191225T043006\_20191225T043041\_C001 Total Geocentric Ocean Tide (solution 1: GOT) for one or more records Geocentric Ocean Tide (GOT) There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20191225T052046 20191225T052229 C001 Mean Dynamic Topography (1) more records There is an error with the Mean Dynamic Topography height for one or CS\_OFFL\_SIR\_IOPN\_2\_20191225T065947\_20191225T070126\_C001 Mean Dynamic Topography (1) more records There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20191225T082952 20191225T083112 C001 Mean Dynamic Topography (1) 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 20191225T083642 20191225T083957 C001 Topography height (solution 1) Topography (1) There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20191225T092755 20191225T092847 C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or CS\_OFFL\_SIR\_IOPN\_2\_20191225T100917\_20191225T101032\_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean CS\_OFFL\_SIR\_IOPN\_2\_20191225T101538\_20191225T101854\_C001 Topography (solution 1), and tidal corrections 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\_20191225T115011\_20191225T115249\_C001 Topography (1) Topography height (solution 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 20191225T115442 20191225T120027 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\_20191225T124530\_20191225T124649\_C001 Topography (1) Topography height (solution 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\_20191225T132831\_20191225T133146\_C001 Topography (1) Topography height (solution 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 20191225T142440 20191225T142546 C001 Γopography height (solution 1) Topography (1) here is an error with the MSS height (solution 1), the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS OFFL SIR IOPN 2 20191225T160353 20191225T160940 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 for one or CS OFFL SIR IOPN 2 20191225T164714 20191225T164832 C001 Mean Dynamic 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\_20191225T200622\_20191225T200948\_C001 Topography height (solution 1) Topography (1) There is an error with the Mean Dynamic Topography height for one or CS\_OFFL\_SIR\_IOPN\_2\_20191225T210504\_20191225T210734\_C001 Mean Dynamic Topography (1) 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 20191225T214526 20191225T214847 C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height for one or CS\_OFFL\_SIR\_IOPN\_2\_20191225T215405\_20191225T215528\_C001 Mean Dynamic Topography (1) more records There is an error with the MSS height (solution 1), the Mean Dynamic Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: CS\_OFFL\_SIR\_IOPN\_2\_20191225T223511\_20191225T223741\_C001 Tide (FES), Non-Equilibrium Long Period FES) and the Non-Equilibrium Long Period Ocean Tide for one or more Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic

Topography (1)

Topography height (solution 1)

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CS_OFFL_SIR_IOPR_2_20191225T010734_20191225T011259_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_20191225T011351_20191225T011446_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_20191225T020257_20191225T020530_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20191225T023627_20191225T023734_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_20191225T024635_20191225T025326_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_20191225T042457_20191225T043006_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_20191225T060225_20191225T060741_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_20191225T060741_20191225T061025_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_20191225T074102_20191225T074832_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_20191225T075219_20191225T075407_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_20191225T075743_20191225T075931_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_20191225T091645_20191225T092633_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_20191225T092633_20191225T092755_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_20191225T105839_20191225T110532_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_20191225T110532_20191225T112031_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_20191225T123818_20191225T124334_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_20191225T124334_20191225T124529_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_20191225T132644_20191225T132831_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_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_20191225T141951_20191225T142439_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_20191225T155826_20191225T160353_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_20191225T173909_20191225T174410_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_20191225T191638_20191225T192610_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_20191225T205708_20191225T210504_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_20191225T223741_20191225T224538_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:

### 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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20191224T235554_20191225T001213_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 IOPM 2 201912251001406 201912251001932 C001	0 7	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20191225T001952_20191225T002218_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T003037_20191225T004306_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T004350_20191225T010058_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T012001_20191225T012007_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T012426_20191225T013358_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T013602_20191225T015110_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T015332_20191225T015829_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T015908_20191225T020028_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have b for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T020730_20191225T021952_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T022433_20191225T023627_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T025326_20191225T025719_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T031524_20191225T033022_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T033258_20191225T033742_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T034433_20191225T041102_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T044117_20191225T044215_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T044458_20191225T050557_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T050646_20191225T050934_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T051719_20191225T052046_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T052349_20191225T055202_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T062349_20191225T064832_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T065114_20191225T065610_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T065618_20191225T065946_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T070427_20191225T073754_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T075016_20191225T075218_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags hav set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T083112_20191225T083641_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have b for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T084321_20191225T091644_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T092928_20191225T093109_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have set for one or more records.

CS_OFFL_SIR_IOPM_2_20191225T093247_20191225T093311_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_20191225T094854_20191225T100538_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_20191225T101032_20191225T101538_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_20191225T102201_20191225T105536_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_20191225T112031_20191225T114312_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_20191225T120157_20191225T121044_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_20191225T121522_20191225T121629_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_20191225T121632_20191225T121904_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_20191225T122346_20191225T123236_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_20191225T125050_20191225T130802_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_20191225T130958_20191225T132420_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_20191225T133147_20191225T133352_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_20191225T134048_20191225T135401_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_20191225T135811_20191225T140733_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_20191225T143444_20191225T144657_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20191225T145226_20191225T150611_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_20191225T150944_20191225T151757_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_20191225T152036_20191225T153611_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_20191225T154033_20191225T154449_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_20191225T161216_20191225T161818_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_20191225T161855_20191225T164521_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_20191225T165114_20191225T165631_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_20191225T165946_20191225T172425_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_20191225T175555_20191225T182316_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_20191225T183040_20191225T183645_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_20191225T183901_20191225T190611_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_20191225T191434_20191225T191637_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.

CB_CPFL_SR_[DML_2_781912291700042_91912291700050_CBB   CB_CPFL_SR_[DML_2_781912291700050_PB   192291700050_CBB   CB_CPFL_SR_[DML_2_781912291700050_CBB   192291700050_CBB   CB_CPFL_SR_[DML_2_781912291700050_CBB   192291700050_CBB   CB_CPFL_SR_[DML_2_781912291700050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_[DML_2_7819122917200050_CBB   19229170050_CBB   CB_CPFL_SR_	CS_OFFL_SIR_IOPM_2_20191225T192955_20191225T200240_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, OPM 2 20191225720589 20191225700591 CODI  CS OFFL SIR, OPM 2 20191225720599 20191225700591 CODI  CS OFFL SIR, OPM 2 20191225720599 2019122570070 CODI  CS OFFL SIR, OPM 2 20191225720599 201912257100 CODI  CS OFFL SIR, OPM 2 20191225710011 2019122571000 CODI  CS OFFL SIR, OPM 2 20191225710011 2019122571100 CODI  CS OFFL SIR, OPM 2 20191225710011 2019122571100 CODI  CS OFFL SIR, OPM 2 20191225710011 2019122571100 CODI  CS OFFL SIR, OPM 2 2019122571001 2019122571100 CODI  CS OFFL SIR, OPM 2 2019122571001 2019122571100 CODI  CS OFFL SIR, OPM 2 2019122571001 2019122571100 CODI  CS OFFL SIR, OPM 2 201912257100 2019122571100 CODI  CS OFFL SIR, OPM 2 2019122571200 201912257110 CODI  CS OFFL SIR, OPM 2 2019122571200 2019122571200 CODI  CS OFFL SIR, OPM 2 2019122571200 2019122571200 CODI  CS OFFL SIR, OPM 2 2019122571200 20191225710 CODI  CS OFFL SIR, OPM 2 201912257100 CODI  CS OFFL SIR, OPM 2 20191225710 CODI  CS OFFL S	CS_OFFL_SIR_IOPM_2_20191225T200948_20191225T201516_C001		
Backscatter Quality  Cis. OFFL_SIR_IOPM_2_20191225720932_20191225721750 CO01  Cis. OFFL_SIR_IOPM_2_20191225721991 20191225721750 CO01  Cis. OFFL_SIR_IOPM_2_20191225721991 20191225721750 CO01  Cis. OFFL_SIR_IOPM_2_20191225721991 20191225721750 CO01  Cis. OFFL_SIR_IOPM_2_20191225721991 20191225721760 CO01  Cis. OFFL_SIR_IOPM_2_201912257218042 20191225721803 CO01  Cis. OFFL_SIR_IOPM_2_201912257218047 20191225721805 CO01  Cis. OFFL_SIR_IOPM_2_201912257218040 CO019257215400 CO0192572154	CS_OFFL_SIR_IOPM_2_20191225T201836_20191225T202307_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and file-oCGG Altimeter Range and Blackscaster Quality (1997)  OS. OFFL_SIR_IOPM_2_201912251210911_201912257211759_C001  OS. OFFL_SIR_IOPM_2_201912251210911_201912257214723_C001  OS. OFFL_SIR_IOPM_2_20191225121091_201912257214723_C001  OS. OFFL_SIR_IOPM_2_201912257214693_201912257214623_C001  OS. OFFL_SIR_IOPM_2_201912257214695_201912257214695_C001  OS. OFFL_SIR_IOPM_2_201912257214695_201912257214695_C001  OS. OFFL_SIR_IOPM_2_201912257214695_20191225722493_C001  OS. OFFL_SIR_IOPM_2_201912257214695_20191225722493_C001  OS. OFFL_SIR_IOPM_2_201912257214695_20191225722493_C001  OS. OFFL_SIR_IOPM_2_20191225721695_20191225722493_C001  OS. OFFL_SIR_IOPM_2_201912257237295_C001  OS. OFFL_SIR_IOPM_2_201912257237295_C001  OS. OFFL_SIR_IOPM_2_201912257237295_C001  OS. OFFL_SIR_IOPM_2_201912257237295_C001  OS. OFFL_SIR_IOPM_2_201912257237295_C001  OS. OFFL_SIR_IOPM_2_20191225723957_C001  OS. OFFL_SIR_IOPM_2_20191225723959_C001192267001125_C001  OS. OFFL_SIR_IOPM_2_2019122570090_201912257001125_C001  OS. OFFL_SIR_IOPM_2_2019122570090_20191225700100000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20191225T202559_20191225T203531_C001		
or of Sept. SIR_JOPM_2_20191225121091_20191225121403_0010  and backscater Quality_COCG Alternater Range and Backscater Quality Flags have been set for one none records.  Ocean Alternater Range and Backscater Quality Flags have been set for one none records.  Ocean Alternater Range and Backscater Quality Flags have been set for one on one records.  OCEAN Alternater Range Quality_OCCG Backscater Quality Backscate	CS_OFFL_SIR_IOPM_2_20191225T205359_20191225T205708_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality COCG Allimeter Range and Backscatter Quality Flags have been set of or one or more records.  CS_OFFL_SIR_JOPM_2_20191225T214847_20191225T214852_CO01  CS_OFFL_SIR_JOPM_2_20191225T214852_20191225T214852_CO01  CS_OFFL_SIR_JOPM_2_20191225T214852_20191225T215405_CO01  CS_OFFL_SIR_JOPM_2_20191225T215405_20191225T215405_CO01  CS_OFFL_SIR_JOPM_2_20191225T215405_20191225T215405_CO01  CS_OFFL_SIR_JOPM_2_20191225T215405_20191225T215405_CO01  CS_OFFL_SIR_JOPM_2_20191225T215405_20191225T215405_CO01  CS_OFFL_SIR_JOPM_2_20191225T215405_20191225T225405_CO01  CS_OFFL_SIR_JOPM_2_20191225T225405_CO01  CS_OFFL_SIR_JOPM_2_20191225T232505_CO01  CS_OFFL_SIR_JOPM_2_20191225T000009_20191225T001125_CO01  Allimeter Range Quality, CCOG Backscatter Quality  And Backscatter Quality  CS_OFFL_SIR_JOPM_2_20191225T000009_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T000009_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T000009_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T1000099_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T1000099_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T1000099_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T1000099_20191225T000047_CO01  CS_OFFL_SIR_JOPM_2_20191225T10000	CS_OFFL_SIR_IOPM_2_20191225T210911_20191225T211750_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_JOPM_2_20191225T214956_20191225T21495_C001  Sodiesatifier Quality  OCOG Altimeter Range 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.  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  OCOG Altimete	CS_OFFL_SIR_IOPM_2_20191225T212034_20191225T214233_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Es_OFFL_SIR_IOPM_2_20191225T215849_20191225T21543 C001  Backscatter Quality  Cs_OFFL_SIR_IOPM_2_20191225T215849_20191225T21543 C001  Cs_OFFL_SIR_IOPM_2_20191225T215849_20191225T232103_C001  Cs_OFFL_SIR_IOPM_2_20191225T232473_20191225T232103_C001  Cs_OFFL_SIR_IOPM_2_20191225T232443_20191225T232550_C001  Cs_OFFL_SIR_IOPM_2_20191225T232443_20191225T232550_C001  Cs_OFFL_SIR_IOPM_2_20191225T232500_20191225T232550_C001  Cs_OFFL_SIR_IOPM_2_20191225T232500_20191225T232550_C001  Cs_OFFL_SIR_IOPM_2_20191225T233952_20191225T233255_C001  Cs_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  Cs_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  Cs_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  Cs_OFFL_SIR_IOPM_2_20191225T051713_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T065947_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T0695947_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T0605947_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T0605947_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T000972_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T000972_20191225T070126_C001  Cs_OFFL_SIR_IOPM_2_20191225T000972_20191225T001032_C001  Cs_OFFL_SIR_IOPM_2_20191225T000972_20191225T001032_C001  Cs_OFFL_SIR_IOPM_2_20191225T100972_20191225T001032_C001  Cs_OFFL_SIR_IOPM_2_20191225T100972_20191225T001032_C001  Cs_OFFL_SIR_IOPM_2_20191225T100972_20191225T00000000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20191225T214847_20191225T214952_C001		
and Backscatter Quality, COGO Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPM_2_20191225T232490_20191225T233255_C001  CS_OFFL_SIR_IOPM_2_20191225T233909_20191225T233255_C001  CS_OFFL_SIR_IOPM_2_20191225T233909_20191225T03125_C001  CS_OFFL_SIR_IOPM_2_20191225T233909_20191225T03125_C001  CS_OFFL_SIR_IOPM_2_20191225T033905_20191225T03125_C001  CS_OFFL_SIR_IOPM_2_20191225T033905_20191225T031719_C001  CS_OFFL_SIR_IOPM_2_20191225T031713_20191225T031719_C001  CS_OFFL_SIR_IOPM_2_20191225T051713_20191225T051719_C001  CS_OFFL_SIR_IOPM_2_20191225T065947_20191225T069447_C001  CS_OFFL_SIR_IOPM_2_20191225T068947_20191225T070126_C001  CS_OFFL_SIR_IOPM_2_20191225T080809_20191225T080947_C001  CS_OFFL_SIR_IOPM_2_20191225T080809_20191225T1080947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T1090947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T1090947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T1090947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T1090947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T1090947_C001  CS_OFFL_SIR_IOPM_2_20191225T1090947_C001  CS_OFFL_SIR_IOPM	CS_OFFL_SIR_IOPM_2_20191225T214955_20191225T215405_C001	3	
and the COGA Allimeter Range and Backscatter Quality Flags have been all three Range and Backscatter Quality Flags have been all three Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPM_2_20191225T232413_20191225T232850_C001  CS_OFFL_SIR_IOPM_2_20191225T232909_20191225T232850_C001  CS_OFFL_SIR_IOPM_2_20191225T233952_20191225T233255_C001  CS_OFFL_SIR_IOPM_2_20191225T233952_20191225T233255_C001  CS_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  CS_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  CS_OFFL_SIR_IOPM_2_20191225T051713_20191225T051719_C001  CS_OFFL_SIR_IOPM_2_20191225T059947_20191225T060047_C001  CS_OFFL_SIR_IOPM_2_20191225T060009_20191225T0600047_C001  CS_OFFL_SIR_IOPM_2_20191225T060009_20191225T0600047_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CCS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CCS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CCS_OFFL_SIR_IOPM_2_20191225T100017_20191225T101032_C001  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CCS_OFFL_SIR_IOPM_2_20191225T1100017_20191225T101032_C001  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CCS_OFFL_SIR_IOPM_2_20191225T141804_20191225T141950_C001  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CCCG_Allimeter Range Quality, OCOG Backscatter Quality Flags have be	CS_OFFL_SIR_IOPM_2_20191225T215849_20191225T221543_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_IOPM_2_20191225T232909_20191225T233255_C001  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPM_2_20191225T233952_20191225T001125_C001  DCGG Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Altimeter Range and Backscatter Quality Flags have been set for one or more records.  DCGG Altimeter Range Altimeter Range and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPM_2_20191225T224732_20191225T232103_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  CS_OFFL_SIR_IOPM_2_20191225T233952_20191226T001125_C001  CS_OFFL_SIR_IOPM_2_20191225T233952_20191226T001125_C001  CS_OFFL_SIR_IOPM_2_20191225T051713_20191225T051719_C001  CS_OFFL_SIR_IOPM_2_20191225T051713_20191225T051719_C001  CS_OFFL_SIR_IOPM_2_20191225T065947_20191225T070126_C001  CS_OFFL_SIR_IOPM_2_20191225T065947_20191225T070126_C001  CS_OFFL_SIR_IOPM_2_20191225T080809_20191225T080947_C001  CS_OFFL_SIR_IOPM_2_20191225T080809_20191225T080947_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109017_20191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T109172_0191225T101032_C001  CS_OFFL_SIR_IOPM_2_20191225T100917_20191225T10001  CCG_Altimeter Range Quality, OCOG_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.  The OCOG_Altimeter Range 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_20191225T141804_20191225T141950_C001  CCG_Altimeter Range Quality, OCOG_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.  The OCOG_Altimeter Range 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.  The OCOG_Altimeter Range and Backscatter Quality Flags have been set fo	CS_OFFL_SIR_IOPM_2_20191225T232413_20191225T232850_C001		
S_OFFL_SIR_IOPM_2_20191225T233952_20191225T051719_C001  and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPN_2_20191225T051713_20191225T051719_C001  CS_OFFL_SIR_IOPN_2_20191225T065947_20191225T070126_C001  CS_OFFL_SIR_IOPN_2_20191225T060809_20191225T080947_C001  CS_OFFL_SIR_IOPN_2_20191225T080809_20191225T080947_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T172709_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T14955_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T122495_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T22244_20191225T14955_C001  CS_OFFL_SIR_IOPR_2_20191225T22344_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T22344_20191225T223510_C001  COOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  COOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  COOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  COOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  COOG Altimeter Range Altimeter Range Albackscatter Quality Flags have been set for one or more records.  COOG Altimeter Range Albackscatter Quality Flags have been set f	CS_OFFL_SIR_IOPM_2_20191225T232909_20191225T233255_C001		
Backscatter Quality  Cs_OFFL_SIR_IOPN_2_20191225T065947_20191225T070126_C001  Cs_OFFL_SIR_IOPN_2_20191225T066947_20191225T070126_C001  Cs_OFFL_SIR_IOPN_2_20191225T080809_20191225T080947_C001  Cs_OFFL_SIR_IOPN_2_20191225T080809_20191225T080947_C001  Cs_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  Cs_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  Cs_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  Cs_OFFL_SIR_IOPN_2_20191225T172709_20191225T172751_C001  Cs_OFFL_SIR_IOPN_2_20191225T172709_20191225T141804_20191225T141950_C001  Cs_OFFL_SIR_IOPR_2_20191225T141804_20191225T214955_C001  Cs_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  Cs_OFFL_SIR_IOPR_2_20191225T22944_20191225T222510_C001  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cs_OFFL_SIR_IOPR_2_20191225T222944_20191225T222510_C001  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cs_OFFL_SIR_IOPR_2_20191225T222944_20191225T222510_C001  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cs_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cs_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cc_OCG Altimeter Range Allimeter Range and Backscatter Quality Plags have been set for one or more records.  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.  Cc_OCG Altimeter Range Quality, OCOG Backscatter Quality Plags have been set for one or more records.	CS_OFFL_SIR_IOPM_2_20191225T233952_20191226T001125_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPN_2_20191225T080809_20191225T080947_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T172709_20191225T172751_C001  CS_OFFL_SIR_IOPN_2_20191225T172709_20191225T172751_C001  CS_OFFL_SIR_IOPN_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T22944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  And Backscatter Quality, OCOG Altimeter Range 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.  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG B	CS_OFFL_SIR_IOPN_2_20191225T051713_20191225T051719_C001	3	
Backscatter Quality  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001  CS_OFFL_SIR_IOPN_2_20191225T172709_20191225T172751_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T22944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Backscatter Quality  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPN_2_20191225T065947_20191225T070126_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality  Gor one or more records.  CS_OFFL_SIR_IOPN_2_20191225T172709_20191225T172751_C001  Backscatter Quality  Gor 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_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  COCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  COCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  COCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001	CS_OFFL_SIR_IOPN_2_20191225T080809_20191225T080947_C001		
Backscatter Quality  CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  Backscatter Quality  GCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPN_2_20191225T100917_20191225T101032_C001		
Backscatter Quality  Gro one or more records.  CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001  Backscatter Quality  Gro one or more records.  The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.  OCGA Altimeter Range Quality, OCOG for one or more records.  OCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  OCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been 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_20191225T172709_20191225T172751_C001		
Backscatter Quality for one or more records.  Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_IOPR_2_20191225T141804_20191225T141950_C001		
CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_IOPR_2_20191225T214953_20191225T214955_C001		
	CS_OFFL_SIR_IOPR_2_20191225T222944_20191225T223510_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been

### 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.

Product	Test Failed	Description
	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_20191225T012053_20191225T012229_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_20191225T020029_20191225T020257_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_20191225T022042_20191225T022432_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_20191225T023741_20191225T023850_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_20191225T024057_20191225T024405_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_20191225T024424_20191225T024634_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_20191225T033040_20191225T033258_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_20191225T043006_20191225T043041_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_20191225T043949_20191225T044117_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_20191225T051049_20191225T051319_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_20191225T061025_20191225T061046_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_20191225T061846_20191225T061951_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_20191225T064946_20191225T065114_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_20191225T065947_20191225T070126_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_20191225T073754_20191225T073907_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_20191225T080809_20191225T080947_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_20191225T081004_20191225T081336_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_20191225T094631_20191225T094854_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_20191225T115442_20191225T120027_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_20191225T132831_20191225T133146_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_20191225T133353_20191225T133448_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_20191225T140733_20191225T140949_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_20191225T142639_20191225T142736_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_20191225T144658_20191225T145226_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_20191225T151757_20191225T151945_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_20191225T154449_20191225T154835_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_20191225T160353_20191225T160940_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_20191225T182634_20191225T182754_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_20191225T210504_20191225T210734_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_20191225T215405_20191225T215528_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_20191225T221543_20191225T221910_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_20191225T223511_20191225T223741_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_20191225T233256_20191225T233412_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_20191225T002406_20191225T003037_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_20191225T010734_20191225T011259_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_20191225T020257_20191225T020530_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_20191225T023627_20191225T023734_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_20191225T024405_20191225T024424_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_20191225T024635_20191225T025326_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_20191225T025749_20191225T025825_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_20191225T030709_20191225T031524_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_20191225T041103_20191225T041153_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_20191225T042457_20191225T043006_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_20191225T052229_20191225T052349_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_20191225T060225_20191225T060741_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_20191225T060741_20191225T061025_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_20191225T061046_20191225T061319_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_20191225T064833_20191225T064946_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_20191225T074102_20191225T074832_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_20191225T074852_20191225T075015_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_20191225T075219_20191225T075407_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_20191225T075743_20191225T075931_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_20191225T083958_20191225T084321_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_20191225T091645_20191225T092633_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_20191225T092633_20191225T092755_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_20191225T092847_20191225T092927_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_20191225T093312_20191225T093530_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_20191225T105839_20191225T110532_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_20191225T110532_20191225T112031_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_20191225T114313_20191225T115011_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_20191225T121905_20191225T122346_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_20191225T123501_20191225T123529_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_20191225T123818_20191225T124334_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_20191225T124334_20191225T124529_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_20191225T130803_20191225T130958_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_20191225T135611_20191225T135811_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_20191225T142737_20191225T142920_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_20191225T142958_20191225T143322_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_20191225T143338_20191225T143443_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_20191225T150611_20191225T150742_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_20191225T153843_20191225T154033_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_20191225T173743_20191225T173847_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_20191225T173909_20191225T174410_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_20191225T182317_20191225T182633_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_20191225T191307_20191225T191433_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_20191225T191638_20191225T192610_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_20191225T200240_20191225T200622_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_20191225T204943_20191225T205240_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_IOPR_2_20191225T205708_20191225T210504_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20191225T205708_20191225T210504_C001  CS_OFFL_SIR_IOPR_2_20191225T222400_20191225T222440_C001	Altimeter Range and Backscatter Quality	

CS_OFFL_SIR_IOPR_2_20191225T223741_20191225T224538_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 201912251224551 201912251224732 C001	1	The OCOG Range and Backscatter Quality Flags have been set for one or more records.

#### 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: 196

#### 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:

#### 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:

### 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:

0

148

### 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_220191225T001937_20191225T010913_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_20191225T010913_20191225T015850_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_220191225T015850_20191225T024827_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_220191225T024827_20191225T033804_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_220191225T033804_20191225T042741_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_20191225T042741_20191225T051718_C001		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_220191225T051718_20191225T060654_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_220191225T060654_20191225T065631_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_220191225T065631_20191225T074608_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_20191225T074608_20191225T083545_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_20191225T083545_20191225T092521_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_220191225T092521_20191225T101458_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_220191225T101458_20191225T110435_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_20191225T110435_20191225T115412_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_20191225T115412_20191225T124348_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_20191225T124348_20191225T133325_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_20191225T133325_20191225T142302_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_20191225T142302_20191225T151239_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_20191225T151239_20191225T160216_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_20191225T160216_20191225T165153_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_20191225T165153_20191225T174129_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_20191225T174129_20191225T183106_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_20191225T183106_20191225T192043_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_20191225T192043_20191225T201020_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_20191225T201020_20191225T205956_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_20191225T205956_20191225T214933_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_220191225T214933_20191225T223910_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_2_20191225T223910_20191225T232847_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_220191225T232847_20191226T001823_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: 29

#### 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:

0

### 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.

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.