

### 31/05/2019





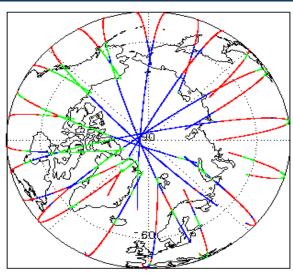
### 1. Overview

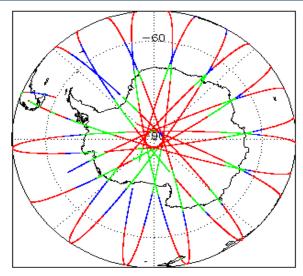
Report Production:	06-Jun-2019		
rioport i roduction.	00-0011-2019		
Processor Used:	CryoSat Ocean Processor		
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data		

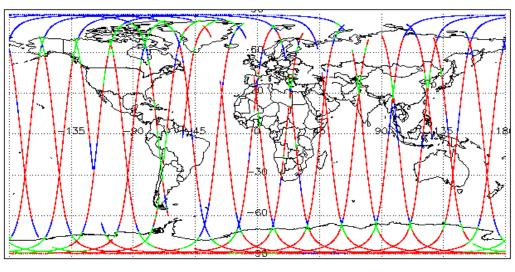
Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5
Measurement Quality Flag Check	See Section 5.6
Ocean Retracking Quality Check	See Section 5.7

Mission / Instrument News		
30-May-2019	None	
31-May-2019	None	
01-Jun-2019	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. NOP Level 1B Data Quality Check

### 4.1 L1B Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

0

### 4.2 L1B Product Header Analysis

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

#### 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.

Dynamic Atmospheric Correction: The DAC is missing in all products because the auxiliary files required are not available in time for processing. This known and expected behaviour.

Number of products with errors:

0

### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

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### 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 NOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

Number of products with errors:

4

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20190531T014555_20190531T014704_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_NOPM1B_20190531T033056_20190531T033542_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_NOPM1B_20190531T035241_20190531T035546_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_NOPM1B_20190531T035833_20190531T040957_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

#### 4.6 L1B Waveform Group Data Check

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

> Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.

Number of products with errors:

17

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20190531T000035_20190531T000958_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190531T035833_20190531T040957_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190531T113602_20190531T114951_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T020614_20190531T021108_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T034104_20190531T034138_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T052818_20190531T053252_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T064651_20190531T064847_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T065546_20190531T065642_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T115539_20190531T115819_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T130457_20190531T130921_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T133240_20190531T133702_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190531T201848_20190531T201917_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190531T021200_20190531T021413_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190531T082622_20190531T082700_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190531T083952_20190531T084956_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190531T132936_20190531T133151_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190531T161241_20190531T161451_C001	Loss of Echo	The tracking echo is missing for one or more records

## 5. NOP Level 2 Data Quality Check

#### 5.1 L2 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

0

### 5.2 L2 Product Header Analysis

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

Number of products with errors:

### 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

0

#### 5.4 L2 Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.
- > Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors:

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Product  CS_OFFL_SIR_NOPM_2_20190531T002806_20190531T002924_C001	Test Failed  ECMWF Meteo Corrections	Description   There is an error with the ECMWF Meteo Corrections for one or more
		records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T011223_20190531T012016_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T025049_20190531T025301_C001	ECMWF Meteo Corrections	records
CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T043012_20190531T043124_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T061209_20190531T061745_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS OFFL SIR NOPM 2 20190531T075113 20190531T075625 C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS OFFL SIR NOPM 2 20190531T092834 20190531T093112 C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
		records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T093118_20190531T093126_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T093128_20190531T093528_C001	ECMWF Meteo Corrections	records
CS_OFFL_SIR_NOPM_2_20190531T101540_20190531T101754_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T110451_20190531T111010_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T111017_20190531T111023_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T111029_20190531T111231_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T124416_20190531T124921_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T124928_20190531T124939_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
		records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T124945_20190531T125101_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T142414_20190531T142837_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T142844_20190531T142852_C001	ECMWF Meteo Corrections	records
CS_OFFL_SIR_NOPM_2_20190531T142859_20190531T143038_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T153504_20190531T160016_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPM_2_20190531T160230_20190531T160751_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T160757_20190531T161123_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS OFFL SIR NOPM 2 20190531T174218 20190531T175029 C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS OFFL SIR NOPM 2 20190531T192157 20190531T192717 C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
		records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T210252_20190531T210617_C001	ECMWF Meteo Corrections	records There is an error with the ECMWE Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190531T224329_20190531T224523_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T224809_20190531T225001_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190531T233724_20190531T234138_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T002656_20190531T002806_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1
	(1) ECMWF Meteo Corrections, Mean	for one or more records There is an error with the ECMWF Meteo Corrections and the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T002924_20190531T003119_C001	Dynamic Topography (1)	Surface Height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T010309_20190531T010512_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean	
CS OFFL SIR NOPN 2 20190531T010855 20190531T011223 C001	Tide (GOT) ECMWF Meteo Corrections, Mean	height for one or more records  There is an error with the ECMWF Meteo Corrections and the Mean Sea
	Dynamic Topography (1)	Surface Height (solution 1) for one or more records  There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T012016_20190531T012040_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T012040_20190531T012203_C001	ECMWF Meteo Corrections Mean Sea	records
CS_OFFL_SIR_NOPN_2_20190531T020614_20190531T021108_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1)
CS_OFFL_SIR_NOPN_2_20190531T024900_20190531T025017_C001	(1) Mean Dynamic Topography (1)	for one or more records There is an error with the Mean Dynamic Topography height for one or
		more records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T025301_20190531T025320_C001	ECMWF Meteo Corrections ECMWF Meteo Corrections, Mean	records There is an error with the ECMWF Meteo Corrections and the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T025906_20190531T030127_C001	Dynamic Topography (1)	Surface Height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T034616_20190531T035038_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20190531T042831_20190531T043012_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T043124_20190531T043259_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T043727_20190531T044014_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T052818_20190531T053252_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or
	ECMWF Meteo Corrections, Mean Sea	more records There is an error with the ECMWF Meteo Corrections, the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T060833_20190531T061209_C001	Surface (1), Mean Dynamic Topography (1)	Surface Height (solution 1) and the Mean Dynamic Topography (solution 1 for one or more records
CS_OFFL_SIR_NOPN_2_20190531T061746_20190531T061901_C001	ECMWF Meteo Corrections, Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T064651_20190531T064847_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
OR OFFI DID NODN A AMARCATOTATE AMARCATOTATE AMARCATOTATE	ECMWF Meteo Corrections, Mean Sea	There is an error with the ECMWF Meteo Corrections, the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T074753_20190531T075112_C001	Surface (1), Mean Dynamic Topography (1)	Surface Height (solution 1) and the Mean Dynamic Topography (solution 1 for one or more records

	1	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T075625_20190531T075750_C001	ECMWF Meteo Corrections	records
CS_OFFL_SIR_NOPN_2_20190531T083840_20190531T083951_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 2)
CS_OFFL_SIR_NOPN_2_20190531T092505_20190531T092834_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T093529_20190531T093637_C001	ECMWF Meteo Corrections, Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T101754_20190531T101759_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T110311_20190531T110451_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T111231_20190531T111401_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T115539_20190531T115819_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T124230_20190531T124416_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T124939_20190531T124945_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T133240_20190531T133702_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 2)
CS_OFFL_SIR_NOPN_2_20190531T142134_20190531T142414_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T142838_20190531T142844_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T142853_20190531T142859_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T143039_20190531T143347_C001	ECMWF Meteo Corrections, Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T160114_20190531T160229_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T160751_20190531T160757_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T161123_20190531T161240_C001	ECMWF Meteo Corrections, Mean	records There is an error with the ECMWF Meteo Corrections and the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T174054_20190531T174218_C001	Dynamic Topography (1)  ECMWF Meteo Corrections	Surface Height (solution 1) for one or more records  There is an error with the ECMWF Meteo Corrections for one or more
		records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T175029_20190531T175143_C001	ECMWF Meteo Corrections ECMWF Meteo Corrections, Mean	records There is an error with the ECMWF Meteo Corrections and the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T192032_20190531T192157_C001	Dynamic Topography (1)	Surface Height (solution 1) for one or more records  There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPN_2_20190531T192718_20190531T192816_C001	ECMWF Meteo Corrections  ECMWF Meteo Corrections, Mean Sea	records There is an error with the ECMWF Meteo Corrections, the Mean Sea
CS_OFFL_SIR_NOPN_2_20190531T210015_20190531T210252_C001	Surface (1), Mean Dynamic Topography (1)	Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T210617_20190531T210952_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T224055_20190531T224329_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20190531T224523_20190531T224727_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T225001_20190531T225148_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190531T233602_20190531T233723_C001	ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) and Total Geocentric Ocean Tide height for one or more records
CS_OFFL_SIR_NOPN_2_20190531T234139_20190531T234249_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T002021_20190531T002253_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20190531T003359_20190531T003532_C001	ECMWF Meteo Corrections, Inverse Barometric Correction, 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 ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) and some tidal corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T034139_20190531T034615_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 2)
CS_OFFL_SIR_NOPR_2_20190531T051816_20190531T052818_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 2)
CS_OFFL_SIR_NOPR_2_20190531T065930_20190531T070717_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 2)
CS_OFFL_SIR_NOPR_2_20190531T083952_20190531T084956_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 2)
CS_OFFL_SIR_NOPR_2_20190531T093112_20190531T093118_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T093126_20190531T093128_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T101906_20190531T102620_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 2)
CS_OFFL_SIR_NOPR_2_20190531T111011_20190531T111016_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T111023_20190531T111029_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T115820_20190531T120534_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 2)
CS_OFFL_SIR_NOPR_2_20190531T124922_20190531T124928_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190531T133702_20190531T134417_C001	Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
5.5 LO Management Occification Patrick	Topography (1)	Topography height (solution 2)

# 5.5 L2 Measurement Confidence Data Check

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20190531T014555_20190531T014704_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_NOPM_2_20190531T033056_20190531T033542_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_NOPM_2_20190531T035241_20190531T035546_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

# 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.

Number of products with errors: 73

CS_OFFL_SIR_NOPM_2_20190531T00335_20190531T003359_C001  CS_OFFL_SIR_NOPM_2_20190531T003352_20190531T003359_C001  CS_OFFL_SIR_NOPM_2_20190531T003352_20190531T003359_C001  CS_OFFL_SIR_NOPM_2_20190531T003252_20190531T003359_C001  CS_OFFL_SIR_NOPM_2_20190531T003252_20190531T004917_C001  CS_OFFL_SIR_NOPM_2_20190531T001513_20190531T001693_C001  CS_OFFL_SIR_NOPM_2_20190531T011223_20190531T012016_C001  CS_OFFL_SIR_NOPM_2_20190531T011223_20190531T012016_C001  CS_OFFL_SIR_NOPM_2_20190531T01123_20190531T012016_C001  CS_OFFL_SIR_NOPM_2_20190531T01123_20190531T02016_C001  CS_OFFL_SIR_NOPM_2_20190531T01123_20190531T02016_C001  CS_OFFL_SIR_NOPM_2_20190531T01123_20190531T02016_C001  CS_OFFL_SIR_NOPM_2_20190531T012537_C001  CS_OFFL_SIR_NOPM_2_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025302_20190531T025005_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T0425301_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T0425301_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T0425005_C001  CS_OFFL_SIR_NOPM_2_20190531T032302_20190531T0425005_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T0426805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T0426805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T0426805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T0426805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T045280_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T045280_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T045280_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T045805_C00
SSHA Quality, Ocean BWH Quality, Ocean BWH Quality, Ocean Backscatter Quality File Ocean Altimeter Range, SSHA, SWH and Backscatter Quality File Ocean Altimeter Range, SSHA, SWH and Backscatter Quality File Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean Backscatter Quality Ocean Backscatter Quality Ocean Backscatter Quality Ocean Backscatter Quality Ocean Backscatter Quality, Ocean SWH Quality, Ocean
SSHA Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Files Composition from our more records.  SSHA Quality, Ocean SWH Quality,
SSHA Quality, Ocean SWH Quality,
Backscatter Quality  CS_OFFL_SIR_NOPM_2_20190531T01253_20190531T013739_C001  CS_OFFL_SIR_NOPM_2_20190531T02537_20190531T025747_C001  CS_OFFL_SIR_NOPM_2_20190531T02537_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001  CS_OFFL_SIR_NOPM_2_20190531T035332_20190531T035905_C001  CS_OFFL_SIR_NOPM_2_20190531T035332_20190531T0440957_C001  CS_OFFL_SIR_NOPM_2_20190531T04533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045863_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T045864  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T050945_C001  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190
SS_OFFL_SIR_NOPM_2_20190531T012253_20190531T024747_C001  CS_OFFL_SIR_NOPM_2_20190531T021537_20190531T024747_C001  CS_OFFL_SIR_NOPM_2_20190531T025049_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025049_20190531T025301_C001  CS_OFFL_SIR_NOPM_2_20190531T025302_20190531T025905_C001  CS_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T030339_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T035333_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T043259_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T0450456_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T050945_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T050945_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816
SSHA Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality ocean SWA Quality ocean or more records.  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001  CS_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T050945_C001  CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_201
Backscatter Quality  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001  Backscatter Quality  CS_OFFL_SIR_NOPM_2_20190531T025320_20190531T025905_C001  CS_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  CS_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T043727_C001  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T04103_20190531T051816_C001  CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  CS_OFFL_SIR_
Backscatter Quality  Cs_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  Cs_OFFL_SIR_NOPM_2_20190531T030239_20190531T0302710_C001  Cs_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001  Cs_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  Cs_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  Cs_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001  Cs_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001  Cs_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001  Cs_OFFL_SIR_NOPM_2_20190531T043259_20190531T043727_C001  Cs_OFFL_SIR_NOPM_2_20190531T044103_20190531T050945_C001  Cs_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  Cs_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  Cs_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  Cs_OFFL_SIR_NOPM_2_20190531T051748_20190531T060524_C001  Cs_OFFL_SIR_NOPM_2_20190531T053253_20190531T060524_C001  Cs_OFFL_SIR_NOPM_2_20190531T0530531T060524_C001  Cs_OFFL_SIR_NOPM_2_20190531T060531T06
CS_OFFL_SIR_NOPM_2_20190531T030239_20190531T032710_C001  SSHA Quality, Ocean SWH Quality,
CS_OFFL_SIR_NOPM_2_20190531T035833_20190531T040957_C001  SSHA Quality, Ocean SWH Quality,
CS_OFFL_SIR_NOPM_2_20190531T041533_20190531T042632_C001  SSHA Quality, Ocean SWH Quality, Ocean 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 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
Backscatter Quality  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T044103_20190531T050945_C001  SSHA Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T051748_20190531T051816_C001  SSHA Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flame SWH Quality, Ocean SWH Quality,
CS_OFFL_SIR_NOPM_2_20190531T053253_20190531T060524_C001 SSHA Quality, Ocean SWH Quality, Ocean SWH Quality, One of the page of
Occan Dackscatter Quality
CS_OFFL_SIR_NOPM_2_20190531T061209_20190531T061745_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T061958_20190531T062531_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T065643_20190531T065816_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality Fla have been set for one or more records.  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T071130_20190531T074455_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flat have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T075113_20190531T075625_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T075930_20190531T081810_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flat have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T084956_20190531T092322_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality Fla have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T092834_20190531T093112_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T093128_20190531T093528_C001  OCOG Altimeter Range Quality, OCOG Backscatter Quality  The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T093946_20190531T100625_C001  Ocean Altimeter Range Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean SWH Quality, Ocean Backscatter Quality  The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flat have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T101540_20190531T101754_C001  OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been

CS_OFFL_SIR_NOPM_2_20190531T102952_20190531T104047_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T104708_20190531T110255_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T110451_20190531T111010_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T111029_20190531T111231_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T112109_20190531T113348_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T113602_20190531T114951_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T115026_20190531T115301_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T121520_20190531T122451_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T122726_20190531T124141_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T124416_20190531T124921_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T124945_20190531T125101_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T125753_20190531T125850_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T131727_20190531T131939_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T132102_20190531T132813_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T140419_20190531T142032_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T142414_20190531T142837_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T142859_20190531T143038_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T143516_20190531T150006_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T153504_20190531T160016_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T160230_20190531T160751_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T163129_20190531T164640_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T171016_20190531T174004_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T174218_20190531T175029_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T175413_20190531T182803_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T184112_20190531T184210_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T191147_20190531T191849_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T192157_20190531T192717_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T193354_20190531T195529_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T195815_20190531T200721_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T201934_20190531T202347_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T203934_20190531T204419_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T204607_20190531T205726_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T210252_20190531T210617_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T211313_20190531T211814_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T211824_20190531T214622_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_NOPM_2_20190531T220237_20190531T220936_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T221000_20190531T223354_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T224329_20190531T224523_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T224809_20190531T225001_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T225227_20190531T230947_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T231341_20190531T232121_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T233724_20190531T234138_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190531T234258_20190531T235827_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190531T175029_20190531T175143_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190531T065930_20190531T070717_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190531T170013_20190531T170124_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

#### L2 Quality Flags (20Hz PLRM)

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

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

47

Number of products with errors:

Product Test Failed Description OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS\_OFFL\_SIR\_NOPN\_2\_20190531T002924\_20190531T003119\_C001 OCOG Backscatter Quality more records. Ocean Altimeter Range Quality PLRM. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS\_OFFL\_SIR\_NOPN\_2\_20190531T010855\_20190531T011223\_C001 Ocean SSHA Quality PLRM, Ocean have been set for one or more records. SWH Quality, Ocean Backscatter Quality The OCOG Range and Backscatter Quality Flags have been set for one or OCOG Altimeter Range Quality PLRM, CS\_OFFL\_SIR\_NOPN\_2\_20190531T012040\_20190531T012203\_C001 OCOG Backscatter Quality nore records Ocean Allimeter Kange Quality PLKIVI, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, OCOG Altimeter Range Quality PLRM, CS OFFL SIR NOPN 2 20190531T020614 20190531T021108 C001 and the OCOG Altimeter Range and Backscatter Flags have been set for Ocean SSHA Quality PLRM, Ocean SWH Quality Ocean Rackscatter one or more records OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS OFFL SIR NOPN 2 20190531T025301 20190531T025320 C001 OCOG Backscatter Quality ocean Allimeter Kange Quality PLKIVI, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, OCOG Altimeter Range Quality PLRM, CS\_OFFL\_SIR\_NOPN\_2\_20190531T025906\_20190531T030127\_C001 and the OCOG Altimeter Range and Backscatter Flags have been set for Ocean SSHA Quality PLRM, Ocean one or more records. SVEBINARITHE LONG AND BECKER REPORTED IN The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, OCOG Altimeter Range Quality PLRM, CS\_OFFL\_SIR\_NOPN\_2\_20190531T042831\_20190531T043012\_C001 and the OCOG Altimeter Range and Backscatter Flags have been set for Ocean SSHA Quality PLRM, Ocean one or more records. OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality The OCOG Range and Backscatter Quality Flags have been set for one or CS\_OFFL\_SIR\_NOPN\_2\_20190531T043124\_20190531T043259\_C001 OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS OFFL SIR NOPN 2 20190531T043727 20190531T044014 C001 OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean SSHA Quality PLRM, Ocean CS\_OFFL\_SIR\_NOPN\_2\_20190531T060833\_20190531T061209\_C001 have been set for one or more records. SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS OFFL SIR NOPN 2 20190531T083840 20190531T083951 C001 have been set for one or more records. SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS OFFL SIR NOPN 2 20190531T092505 20190531T092834 C001 OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality CS\_OFFL\_SIR\_NOPN\_2\_20190531T111231\_20190531T111401\_C001 have been set for one or more records OCOG Altimeter Range Quality PLRM. The OCOG Range and Backscatter Quality Flags have been set for one or CS\_OFFL\_SIR\_NOPN\_2\_20190531T115539\_20190531T115819\_C001 OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS\_OFFL\_SIR\_NOPN\_2\_20190531T125918\_20190531T125930\_C001 Ocean SSHA Quality PLRM, Ocean have been set for one or more records SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS\_OFFL\_SIR\_NOPN\_2\_20190531T142134\_20190531T142414\_C001 Ocean SSHA Quality PLRM, Ocean have been set for one or more records. SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS OFFL SIR NOPN 2 20190531T143039 20190531T143347 C001 OCOG Backscatter Quality more records. Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS\_OFFL\_SIR\_NOPN\_2\_20190531T160114\_20190531T160229\_C001 Ocean SSHA Quality PLRM, Ocean have been set for one or more records. SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or CS OFFL SIR NOPN 2 20190531T210015 20190531T210252 C001 OCOG Backscatter Quality more records. Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS OFFL SIR NOPN 2 20190531T210617 20190531T210952 C001 Ocean SSHA Quality PLRM, Ocean have been set for one or more records. SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags CS\_OFFL\_SIR\_NOPN\_2\_20190531T215859\_20190531T215932\_C001\_ Ocean SSHA Quality PLRM, Ocean have been set for one or more records

SWH Quality, Ocean Backscatter Quality

CS\_OFFL\_SIR\_NOPN\_2\_20190531T225001\_20190531T225148\_C001 CS OFFL SIR NOPN 2 20190531T233602 20190531T233723 C001 CS OFFL SIR NOPN 2 20190531T234139 20190531T234249 C001 CS OFFL SIR NOPR 2 20190531T002021 20190531T002253 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T003359\_20190531T003532\_C001 CS OFFL SIR NOPR 2 20190531T012204 20190531T012253 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T030128\_20190531T030239\_C001 CS OFFL SIR NOPR 2 20190531T034139 20190531T034615 C001 CS OFFL SIR NOPR 2 20190531T051816 20190531T052818 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T074455\_20190531T074753\_C001 CS OFFL SIR NOPR 2 20190531T083620 20190531T083840 C001 CS OFFL SIR NOPR 2 20190531T083952 20190531T084956 C001 CS OFFL SIR NOPR 2 20190531T092323 20190531T092505 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T093637\_20190531T093946\_C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T101906\_20190531T102620\_C001 CS OFFL SIR NOPR 2 20190531T111421 20190531T112059 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T115820\_20190531T120534\_C001 CS OFFL SIR NOPR 2 20190531T132936 20190531T133151 C001 CS OFFL SIR NOPR 2 20190531T133702 20190531T134417 C001 CS OFFL SIR NOPR 2 20190531T160016 20190531T160114 C001 CS OFFL SIR NOPR 2 20190531T170215 20190531T170241 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T193026\_20190531T193354\_C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T210952\_20190531T211313\_C001 CS OFFL SIR NOPR 2 20190531T215758 20190531T215859 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190531T215933\_20190531T220150\_C001

Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM. Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM. Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean

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

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

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

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

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

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

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

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

CS\_OFFL\_SIR\_NOPR\_2\_20190531T223355\_20190531T224054\_C001

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.

### 5.7 L2 Ocean Retracking Quality Check

### L2 Quality 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 falling at ocean/ land boundaries, but this is expected.

Number of products with errors:

69

### L2 Quality 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 NOPR and NOPN products over sea ice, but this is to be expected.

Number of products with errors:

134