







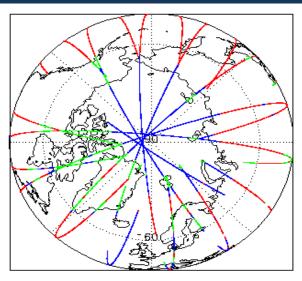
1. Overview

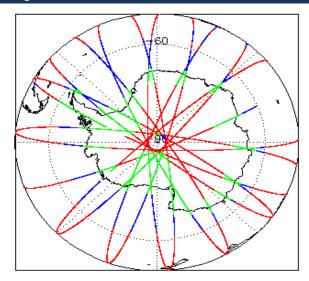
Report Production:	10-Jun-2019	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data	

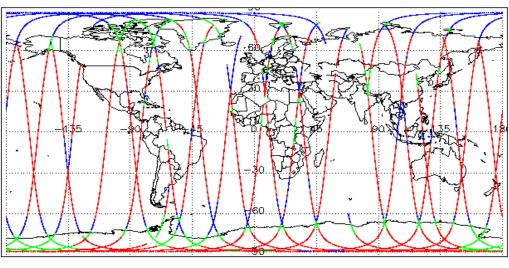
Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Sections 4.2 and 5.2
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement Confidence Data Check	See Section 4.5, 4.6
Measurement Quality Flag Check	See Section 5.6
Ocean Retracking Quality Check	See Section 5.7

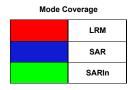
wission / instrument news		
08-Jun-2019	None	
09-Jun-2019	None	
10-Jun-2019 Nothing planned		

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:

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:

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:

(

4.6 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:

19

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20190609T070708_20190609T071658_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T092624_20190609T092931_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T092934_20190609T100147_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T111234_20190609T112404_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T161334_20190609T163849_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T201222_20190609T204826_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190609T234817_20190609T235739_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T000604_20190609T001049_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T010548_20190609T010758_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T010853_20190609T011122_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T055810_20190609T055903_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T060842_20190609T061004_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T091418_20190609T091628_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190609T123102_20190609T123408_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190609T073703_20190609T073828_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190609T083616_20190609T083935_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190609T091833_20190609T092624_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190609T142047_20190609T142218_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190609T213319_20190609T214018_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:

with errors:

5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.
- > 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:

102

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20190609T001219_20190609T001454_C001	IECMINE Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T001515_20190609T001942_C001	FCMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T015005_20190609T015854_C001	IECMWE Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records

OO OFFI OID NORM A COMMONOTOROUM COMMONOTOROUM COM	FOMME Makes Occurred to the	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T032934_20190609T033111_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T033221_20190609T033645_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T051135_20190609T051723_C001	ECMWF Meteo Corrections	records There is an error with the Mean Dynamic Topography height for one or
CS_OFFL_SIR_NOPM_2_20190609T054346_20190609T054520_C001	Mean Dynamic Topography (1)	more records
CS_OFFL_SIR_NOPM_2_20190609T065041_20190609T065554_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T082908_20190609T083041_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T083048_20190609T083458_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T091703_20190609T091706_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T100412_20190609T100939_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T100945_20190609T100952_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T100959_20190609T101225_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T105238_20190609T105306_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T105502_20190609T105636_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T114339_20190609T114836_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T114844_20190609T114850_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T114857_20190609T114908_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T114915_20190609T115035_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS OFFL SIR NOPM 2 20190609T132304 20190609T132749 C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T132754_20190609T132806_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T132813_20190609T132821_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_Z_201900091132813_201900091132821_C001 CS_OFFL_SIR_NOPM_Z_2019060911328129_201906091132940_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_20190609T164121_20190609T164617_C001	ECMWF Meteo Corrections	records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T164625_20190609T164953_C001	ECMWF Meteo Corrections	records There is an error with the Mean Dynamic Topography height for one or
CS_OFFL_SIR_NOPM_2_20190609T174058_20190609T174406_C001	Mean Dynamic Topography (1)	more records There is an error with the Mean Dynamic Topography height for one or
CS_OFFL_SIR_NOPM_2_20190609T175233_20190609T175407_C001	Mean Dynamic Topography (1)	more records There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T182119_20190609T182648_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more
CS_OFFL_SIR_NOPM_2_20190609T200038_20190609T200545_C001	ECMWF Meteo Corrections	records
CS_OFFL_SIR_NOPM_2_20190609T214256_20190609T214449_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T223657_20190609T223926_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T232154_20190609T232359_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190609T232455_20190609T232901_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T000604_20190609T001049_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_20190609T001454_20190609T001515_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T001943_20190609T002123_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
	ECMWF Meteo Corrections, Mean Sea	There is an error with the ECMWF Meteo Corrections, the Mean Sea
CS_OFFL_SIR_NOPN_2_20190609T010548_20190609T010758_C001	Surface (1), Mean Dynamic Topography (1) EUNIVE INICIONAL INVERSE	Surface Height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records inner is an error with the ELIMANT MILE OF MEAN THE INVESTIGATION OF THE INVESTIGATION OF THE PROPERTY OF THE PROPERTY OF T
CS_OFFL_SIR_NOPN_2_20190609T010853_20190609T011122_C001	Barometric Correction, Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long	Barometric Correction, the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20190609T014828_20190609T015004_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_20190609T015855_20190609T020053_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T024503_20190609T024948_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 Inverse Barometric Correction, the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20190609T032804_20190609T032934_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T033111_20190609T033221_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T033645_20190609T033918_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_20190609T050744_20190609T051135_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 Inverse Barometric Correction, the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: EFS) and the Non-Equilibrium Long Period Ocean Tide for
CS_OFFL_SIR_NOPN_2_20190609T051724_20190609T051848_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records

CS_OFFL_SIR_NOPN_2_20190609T060842_20190609T061004_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20190609T064726_20190609T065040_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_20190609T065555_20190609T065709_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_20190609T082444_20190609T082908_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_20190609T083458_20190609T083616_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_20190609T091418_20190609T091628_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 Inverse Barometric Correction, the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20190609T091706_20190609T091833_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), the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20190609T100251_20190609T100412_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T101226_20190609T101412_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_20190609T105104_20190609T105237_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T105307_20190609T105502_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T105636_20190609T105738_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_20190609T114157_20190609T114339_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T114908_20190609T114915_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T115036_20190609T115303_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_20190609T123102_20190609T123408_C001	ECMWF Meteo Corrections, Total Geocentric Ocean Tide (GOT)	There is an error with the ECMWF Meteo Corrections and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20190609T123430_20190609T123640_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_20190609T132045_20190609T132304_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T132807_20190609T132812_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T132822_20190609T132828_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T132940_20190609T133350_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_20190609T141111_20190609T141502_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_20190609T142012_20190609T142046_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_20190609T163953_20190609T164120_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T164617_20190609T164624_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T164953_20190609T165025_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T181959_20190609T182118_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_20190609T182648_20190609T183004_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_20190609T191801_20190609T191851_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_20190609T195924_20190609T200038_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_20190609T200545_20190609T200901_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 Inverse Barometric Correction, the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20190609T214018_20190609T214255_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_20190609T214449_20190609T215033_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_20190609T223535_20190609T223557_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_20190609T223927_20190609T224045_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T231842_20190609T232153_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_20190609T232400_20190609T232454_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPN_2_20190609T232902_20190609T233038_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T041751_20190609T042537_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_20190609T054805_20190609T054944_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_20190609T055904_20190609T060651_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_20190609T073840_20190609T074758_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_20190609T083041_20190609T083047_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T091833_20190609T092624_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_20190609T100939_20190609T100945_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T100952_20190609T100958_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T105739_20190609T110305_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_20190609T114836_20190609T114843_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T114851_20190609T114856_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T122615_20190609T122722_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_20190609T123640_20190609T124342_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_20190609T132749_20190609T132754_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190609T141502_20190609T142011_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_20190609T174747_20190609T174937_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_20190609T231649_20190609T231841_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records

5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

C

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20Hz)

CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record. The bit value of this flag indicates any problems when set.

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20190609T000145_20190609T000603_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_20190609T001219_20190609T001454_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_20190609T001515_20190609T001942_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_20190609T002230_20190609T003628_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_20190609T003808_20190609T004050_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_20190609T012329_20190609T012620_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_20190609T012623_20190609T014650_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_20190609T015005_20190609T015854_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_20190609T020156_20190609T022507_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_20190609T030222_20190609T032552_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_20190609T033221_20190609T033645_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_20190609T041735_20190609T041751_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_20190609T043341_20190609T044835_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_20190609T045410_20190609T050426_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_20190609T051135_20190609T051723_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_20190609T051956_20190609T052541_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality,	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
	Ocean Backscatter Quality Ocean Altimeter Range Quality, Ocean	have been set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_NOPM_2_20190609T052722_20190609T054240_C001	SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality, Ocean	have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190609T061004_20190609T064337_C001	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_20190609T065041_20190609T065554_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_20190609T065929_20190609T070040_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_20190609T070241_20190609T070655_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_20190609T070708_20190609T071658_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_20190609T073311_20190609T073703_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_20190609T074759_20190609T075844_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_20190609T080130_20190609T082239_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_20190609T082908_20190609T083041_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_20190609T083048_20190609T083458_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_20190609T083935_20190609T085910_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_20190609T090005_20190609T090424_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_20190609T092934_20190609T100147_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_20190609T100412_20190609T100939_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_20190609T102044_20190609T103312_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_20190609T103355_20190609T105043_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_20190609T105502_20190609T105636_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_20190609T111234_20190609T112404_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_20190609T112608_20190609T114046_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_20190609T114339_20190609T114836_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_20190609T115737_20190609T120958_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_20190609T121439_20190609T122614_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_20190609T130530_20190609T131956_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_20190609T132304_20190609T132749_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_20190609T132754_20190609T132806_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_20190609T133538_20190609T140107_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_20190609T161334_20190609T163849_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_20190609T164121_20190609T164617_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_20190609T165404_20190609T170432_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_20190609T171007_20190609T172800_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_20190609T181306_20190609T181428_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_20190609T181628_20190609T181743_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_20190609T182119_20190609T182648_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_20190609T183340_20190609T190829_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_20190609T191933_20190609T192114_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_20190609T193901_20190609T195615_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_20190609T200038_20190609T200545_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_20190609T201222_20190609T204826_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_20190609T211037_20190609T213319_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_20190609T214256_20190609T214449_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_20190609T215222_20190609T220011_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_20190609T220014_20190609T220632_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_20190609T221351_20190609T222815_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_20190609T224115_20190609T225809_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_20190609T230004_20190609T231425_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_20190609T232455_20190609T232901_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_20190609T233112_20190609T234616_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_20190609T234817_20190609T235739_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_20190609T014828_20190609T015004_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_NOPN_2_20190609T033111_20190609T033221_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_NOPN_2_20190609T101226_20190609T101412_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_20190609T132940_20190609T133350_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_20190609T231842_20190609T232153_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_NOPR_2_20190609T003628_20190609T003808_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_20190609T041536_20190609T041735_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_20190609T055733_20190609T055809_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_20190609T101413_20190609T102043_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_20190609T114046_20190609T114156_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_20190609T181744_20190609T181958_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.

Number of products with errors: 54

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20190609T000604_20190609T001049_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T001454_20190609T001515_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_NOPN_2_20190609T001943_20190609T002123_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T010548_20190609T010758_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T014828_20190609T015004_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_NOPN_2_20190609T015855_20190609T020053_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T024503_20190609T024948_C001 CS_OFFL_SIR_NOPN_2_20190609T033111_20190609T033221_C001 CS_OFFL_SIR_NOPN_2_20190609T050744_20190609T051135_C001 CS_OFFL_SIR_NOPN_2_20190609T065555_20190609T065709_C001 CS_OFFL_SIR_NOPN_2_20190609T082444_20190609T082908_C001	Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190609T050744_20190609T051135_C001 CS_OFFL_SIR_NOPN_2_20190609T065555_20190609T065709_C001 CS_OFFL_SIR_NOPN_2_20190609T082555_20190609T082908_C001	OCOG Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Autimited Range Quality	more records. The OCOG Range and Backscatter Quality Flags have been set for one or
CS_OFFL_SIR_NOPN_2_20190609T065555_20190609T065709_C001 CS_OFFL_SIR_NOPN_2_20190609T065555_20190609T065709_C001 CS_OFFL_SIR_NOPN_2_20190609T082444_20190609T082908_C001	OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Autiniteter Range Quality PLRM,	, ,
CS_OFFL_SIR_NOPN_2_20190609T065555_20190609T065709_C001 CS_OFFL_SIR_NOPN_2_20190609T082444_20190609T082908_C001	Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Administer Range Quality PLRM,	
CS_OFFL_SIR_NOPN_2_20190609T082444_20190609T082908_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS OFFI SIR NORN 2 20100600T001418 20100600T001628 C001	Ocean SSHA Quality PLRM Ocean	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags 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 more records.
		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190609T172800_20190609T172912_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T193640_20190609T193901_C001	Ocean Altimeter Range Quality PLRM,	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190609T195924_20190609T200038_C001	OCOG Altimeter Range Quality PLRM,	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190609T200545_20190609T200901_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_NOPN_2_20190609T214018_20190609T214255_C001	Ocean SSHA Quality PLRM, Ocean	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20190609T214449_20190609T215033_C001	SWIH Aublity Ocean Reversiter Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T231612_20190609T231649_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190609T003628_20190609T003808_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T011122_20190609T011207_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190609T032552_20190609T032803_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T041751_20190609T042537_C001	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_20190609T050426_20190609T050743_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T055904_20190609T060651_C001	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_20190609T064338_20190609T064726_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T073840_20190609T074758_C001	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_20190609T082239_20190609T082444_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_201906091063041_201906091063047_C001	OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190609T091833_20190609T092624_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_20190609T100148_20190609T100250_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, 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_201906091100952_201906091100956_C001	<u> </u>	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20190609T101413_20190609T102043_C001	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_20190609T105739_20190609T110305_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
		The OCOG Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_NOPR_2_20190609T115304_20190609T115538_C001

CS_OFFL_SIR_NOPR_2_20190609T123640_20190609T124342_C001

CS_OFFL_SIR_NOPR_2_20190609T125715_20190609T130427_C001

CS_OFFL_SIR_NOPR_2_20190609T141502_20190609T142011_C001

CS_OFFL_SIR_NOPR_2_20190609T142047_20190609T142218_C001

CS_OFFL_SIR_NOPR_2_20190609T165133_20190609T165404_C001

CS_OFFL_SIR_NOPR_2_20190609T173857_20190609T174058_C001

CS_OFFL_SIR_NOPR_2_20190609T181744_20190609T181958_C001

CS_OFFL_SIR_NOPR_2_20190609T183005_20190609T183339_C001

CS_OFFL_SIR_NOPR_2_20190609T200901_20190609T201222_C001

CS_OFFL_SIR_NOPR_2_20190609T213319_20190609T214018_C001

CS_OFFL_SIR_NOPR_2_20190609T215033_20190609T215221_C001

CS_OFFL_SIR_NOPR_2_20190609T215033_20190609T231841_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, 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

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.

The Ocean Altimeter Range, SSHA, SWH 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:

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:

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:

128