

# IDEAS+ Daily Report for NOP data:

# 04/06/2019



Ipper IProduction       07-June 2019         Processor Used       GryoSarl Ocean Processor         Table Tabl	LRYUSAT			*		
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Data Used:       LIB & L2 Score Data       Product Header Analysis       See Section 4.2 and 5.2         Municipuid pair la fue dange Check       See Section 5.4       See Section 5.4         Mussurement Control Conck       See Section 5.4       See Section 5.4         Mussurement Control Conck       See Section 5.7       See Section 5.7         Concent News         Junction         Municipation         Municipation <td <="" colspan="2" td=""><td></td><td>Neer Real Time Ocean Braduate (NOR)</td><td></td><td></td></td>	<td></td> <td>Neer Real Time Ocean Braduate (NOR)</td> <td></td> <td></td>			Neer Real Time Ocean Braduate (NOR)		
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## 3. Instrument Configuration

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

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SIRAL instrument(s) in use:

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:

### 4.2 L1B Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.
Number of products with errors:
0

### 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:	0		

### 4.5 L1B Measurement Confidence Data Check

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

> Attitude Correction Missing: This flag is currently set in error for 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:
 0

#### 4.6 L1B Waveform Group Data Check

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

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

17

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20190604T102118_20190604T103553_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190604T104035_20190604T104154_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190604T190253_20190604T190544_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20190604T210841_20190604T214456_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T002203_20190604T002312_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T010459_20190604T010706_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T052329_20190604T052743_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T065040_20190604T065141_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T110734_20190604T110928_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T124607_20190604T125131_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20190604T184526_20190604T184720_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T051332_20190604T052328_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T064131_20190604T064212_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T083123_20190604T083339_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T093142_20190604T093517_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T114802_20190604T115107_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20190604T215507_20190604T215540_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: 0

### 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

#### 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.

101

> Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.

> Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20190604T002313_20190604T002419_C001	ECMWF Meteo Corrections	There is an error with the Mean Sea Surface (solution 1), Mean Dynamic Topography, and Total Geocentric Ocean Tide (GOT) height
CS_OFFL_SIR_NOPM_2_20190604T010722_20190604T011523_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190604T024558_20190604T024806_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPM_2_20190604T024834_20190604T025408_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records

CS_OFFL_SIR_NOPM_2_20190604T035328_20190604T035542_C001
CS_OFFL_SIR_NOPM_2_20190604T042519_20190604T042625_C001
CS_OFFL_SIR_NOPM_2_20190604T042807_20190604T043246_C001
CS_OFFL_SIR_NOPM_2_20190604T043329_20190604T043402_C001
CS_OFFL_SIR_NOPM_2_20190604T060716_20190604T061248_C001
CS_OFFL_SIR_NOPM_2_20190604T074619_20190604T075132_C001
CS_OFFL_SIR_NOPM_2_20190604T092224_20190604T092618_C001
CS_OFFL_SIR_NOPM_2_20190604T092624_20190604T092631_C001
CS_OFFL_SIR_NOPM_2_20190604T092636_20190604T093032_C001
CS_OFFL_SIR_NOPM_2_20190604T104157_20190604T105748_C001

CS\_OFFL\_SIR\_NOPM\_2\_20190604T105958\_20190604T110516\_C001

CS\_OFFL\_SIR\_NOPM\_2\_20190604T110523\_20190604T110529\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T110536\_20190604T110734\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T123924\_20190604T124427\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T124434\_20190604T124445\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T124452\_20190604T124606\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T141934\_20190604T142343\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T142350\_20190604T142359\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T142405\_20190604T142557\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T151919\_20190604T152022\_C001 CS OFFL SIR NOPM 2 20190604T155732 20190604T160257 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T160304\_20190604T160629\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T173729\_20190604T174536\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T191706\_20190604T192223\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T205826\_20190604T210123\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T223836\_20190604T224030\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T224258\_20190604T224518\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190604T233228\_20190604T233630\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T002203\_20190604T002312\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T002420\_20190604T002547\_C001 CS OFFL SIR NOPN 2 20190604T010459 20190604T010706 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T010706\_20190604T010722\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T011524\_20190604T011712\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T020120\_20190604T020124\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T024409\_20190604T024557\_C001 CS OFFL SIR NOPN 2 20190604T024807 20190604T024833 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T025409\_20190604T025633\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T034131\_20190604T034539\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T042337\_20190604T042518\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T042626\_20190604T042806\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T043246\_20190604T043329\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T043403\_20190604T043526\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T052329\_20190604T052743\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T060344\_20190604T060716\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T061249\_20190604T061404\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T064213\_20190604T064349\_C001

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CS\_OFFL\_SIR\_NOPN\_2\_20190604T074258\_20190604T074619\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T075132\_20190604T075256\_C001 CS OFFL SIR NOPN 2 20190604T083340 20190604T083502 C001 CS OFFL SIR NOPN 2 20190604T092009 20190604T092223 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T093033\_20190604T093141\_C001 CS OFFL SIR NOPN 2 20190604T101302 20190604T101318 C001 CS OFFL SIR NOPN 2 20190604T105819 20190604T105958 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T110734\_20190604T110928\_C001 CS OFFL SIR NOPN 2 20190604T115108 20190604T115208 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T115208\_20190604T115324\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T123736\_20190604T123923\_C001 CS OFFL SIR NOPN 2 20190604T124445 20190604T124451 C001 CS OFFL SIR NOPN 2 20190604T124607 20190604T125131 C001 CS OFFL SIR NOPN 2 20190604T132652 20190604T133204 C001 CS OFFL SIR NOPN 2 20190604T141640 20190604T141933 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T142344\_20190604T142350\_C001 CS OFFL SIR NOPN 2 20190604T142359 20190604T142405 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T142558\_20190604T142856\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T150646\_20190604T150937\_C001 CS OFFL SIR NOPN 2 20190604T150937 20190604T151026 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T155618\_20190604T155732\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T160258\_20190604T160303\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T160630\_20190604T160748\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T164209\_20190604T164718\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T173605\_20190604T173729\_C001 CS OFFL SIR NOPN 2 20190604T174537 20190604T174648 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T191541\_20190604T191706\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T192224\_20190604T192530\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T202323\_20190604T202346\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T205525\_20190604T205826\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T210124\_20190604T210503\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T215653\_20190604T215740\_C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T223601\_20190604T223836\_C001 CS OFFL SIR NOPN 2 20190604T224030 20190604T224201 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T224518\_20190604T224557\_C001 CS OFFL SIR NOPN 2 20190604T233108 20190604T233228 C001 CS\_OFFL\_SIR\_NOPN\_2\_20190604T233631\_20190604T233750\_C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T001520\_20190604T001653\_C001 CS OFFL SIR NOPR 2 20190604T033641 20190604T034131 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T051332\_20190604T052328\_C001 CS OFFL SIR NOPR 2 20190604T065425 20190604T070222 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T083502\_20190604T084237\_C001 CS OFFL SIR NOPR 2 20190604T092618 20190604T092624 C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T092632\_20190604T092636\_C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T101411\_20190604T102118\_C001 CS\_OFFL\_SIR\_NOPR\_2\_20190604T110517\_20190604T110523\_C001 ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)ECMWF Meteo Corrections, Mean Dynamic Topography (1) Mean Sea Surface (1). Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWE Meteo Corrections Mean Dynamic Topography (1) ECMWE Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)ECMWF Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections. Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections, Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Dynamic Topography (1) Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections records Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Dynamic Topography (1) ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)Mean Dynamic Topography (1) ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)Mean Dynamic Topography (1) ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1)ECMWF Meteo Corrections records ECMWF Meteo Corrections records ECMWF Meteo Corrections, Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) ECMWF Meteo Corrections records Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections records ECMWF Meteo Corrections ecords Mean Sea Surface (1), Mean Dynamic Topography (1) ECMWF Meteo Corrections records

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 There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more 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 There is an error with the ECMWF Meteo Corrections for one or more 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 There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more 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 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 There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 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 MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more 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 There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections and the Mean Sea Surface Height (solution 1) for one or more records 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 There is an error with the Mean Dynamic Topography height for one or more records 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 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 There is an error with the Mean Dynamic Topography height for one or more records 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 There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections, the Mean Sea Surface Height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records There is an error with the ECMWF Meteo Corrections for one or more There is an error with the Mean Dynamic Topography height for one or more records There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the MSS height (solution 1) and the Mean Dynamic Fopography height (solution 2) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the ECMWF Meteo Corrections for one or more There is an error with the ECMWF Meteo Corrections for one or more There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 2) There is an error with the ECMWF Meteo Corrections for one or more

CS_OFFL_SIR_NOPR_2_20190604T110530_20190604T110535_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190604T112855_20190604T113108_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Sea Surface Height (solution 1) and the Total Geocentric Ocean Tide (GOT) height for one or more records
CS_OFFL_SIR_NOPR_2_20190604T115325_20190604T120039_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_20190604T124428_20190604T124434_C001	ECMWF Meteo Corrections	There is an error with the ECMWF Meteo Corrections for one or more records
CS_OFFL_SIR_NOPR_2_20190604T133204_20190604T133917_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)

### 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:
0

# 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.

74

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20190603T235540_20190604T000503_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_20190604T003156_20190604T004403_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_20190604T010006_20190604T010228_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_20190604T010722_20190604T011523_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_20190604T011806_20190604T013246_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_20190604T020942_20190604T024236_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_20190604T024834_20190604T025408_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_20190604T025801_20190604T032154_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_20190604T035545_20190604T040504_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_20190604T041042_20190604T042123_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_20190604T042807_20190604T043246_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_20190604T043644_20190604T050407_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_20190604T052743_20190604T055959_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_20190604T060716_20190604T061248_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_20190604T061552_20190604T062036_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_20190604T065142_20190604T065424_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_20190604T070628_20190604T073950_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_20190604T074619_20190604T075132_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_20190604T075534_20190604T081314_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_20190604T084404_20190604T091812_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_20190604T092224_20190604T092618_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_20190604T092636_20190604T093032_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_20190604T093517_20190604T100132_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_20190604T100151_20190604T100850_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_20190604T102118_20190604T103553_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_20190604T104035_20190604T104154_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_20190604T104157_20190604T105748_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_20190604T110523_20190604T110529_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_20190604T111558_20190604T112855_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_20190604T113109_20190604T114512_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_20190604T114524_20190604T114801_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_20190604T121028_20190604T122054_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_20190604T122234_20190604T123639_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_20190604T123924_20190604T124427_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_20190604T124434_20190604T124445_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_20190604T124452_20190604T124606_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_20190604T125300_20190604T125357_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_20190604T130140_20190604T130455_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_20190604T131219_20190604T131446_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_20190604T135127_20190604T135706_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_20190604T135741_20190604T141517_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_20190604T141934_20190604T142343_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_20190604T143043_20190604T145623_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_20190604T153033_20190604T155453_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_20190604T155732_20190604T160257_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_20190604T161005_20190604T162058_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_20190604T162636_20190604T164209_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_20190604T170529_20190604T172721_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_20190604T172918_20190604T173418_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_20190604T173729_20190604T174536_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_20190604T174959_20190604T182257_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_20190604T183612_20190604T183712_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_20190604T190253_20190604T190544_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_20190604T190617_20190604T191310_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_20190604T191706_20190604T192223_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_20190604T192914_20190604T195035_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_20190604T195321_20190604T200339_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_20190604T201408_20190604T201853_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_20190604T203434_20190604T203926_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_20190604T204114_20190604T205141_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_20190604T210841_20190604T214456_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190604T215633_20190604T215653_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_20190604T215740_20190604T220431_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_20190604T220446_20190604T222900_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_20190604T223836_20190604T224030_C001	<b>o </b>	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190604T224258_20190604T224518_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_20190604T224758_20190604T230353_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20190604T230356_20190604T231615_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_20190604T233751_20190604T235333_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_20190604T120702_20190604T121028_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.

54

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20190604T002203_20190604T002312_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_20190604T002420_20190604T002547_C001	Ocean Altimeter Range Quality PLRM, OCOG Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality Ocean Backscatter	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_20190604T010413_20190604T010444_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_20190604T010459_20190604T010706_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_20190604T010706_20190604T010722_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_20190604T024409_20190604T024557_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_20190604T025409_20190604T025633_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_20190604T043403_20190604T043526_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_20190604T052329_20190604T052743_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Aumeter 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_20190604T061249_20190604T061404_C001	OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range Quality PLRM, 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_20190604T074258_20190604T074619_C001	OCOG Altimeter Range Quality PLRM, 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_20190604T083340_20190604T083502_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_20190604T105819_20190604T105958_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_20190604T110734_20190604T110928_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_20190604T123736_20190604T123923_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_20190604T124607_20190604T125131_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_20190604T132319_20190604T132441_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_20190604T132652_20190604T133204_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_20190604T141640_20190604T141933_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_20190604T142558_20190604T142856_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_20190604T150937_20190604T151026_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_20190604T173605_20190604T173729_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_20190604T174537_20190604T174648_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_20190604T191541_20190604T191706_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_20190604T192224_20190604T192530_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_20190604T205525_20190604T205826_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_20190604T215334_20190604T215506_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Aumiteuer 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_20190604T223601_20190604T223836_C001	OCOG Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWIH Quality Ocean Backscatter	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_20190604T224030_20190604T224201_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_20190604T233108_20190604T233228_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_NOPR_2_20190604T010229_20190604T010413_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_20190604T033234_20190604T033452_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_20190604T033641_20190604T034131_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_20190604T042124_20190604T042337_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_20190604T051332_20190604T052328_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_20190604T061405_20190604T061551_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_20190604T065425_20190604T070222_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_20190604T073950_20190604T074258_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_20190604T075257_20190604T075534_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_20190604T083502_20190604T084237_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_20190604T101411_20190604T102118_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_20190604T110928_20190604T111558_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.					
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: 176							
5.7 L2 Ocean Retracking Quality Check							

5.7	L2 C	Dcean	Retrackin	g Qualit	y Chec
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# 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: 60 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:

137