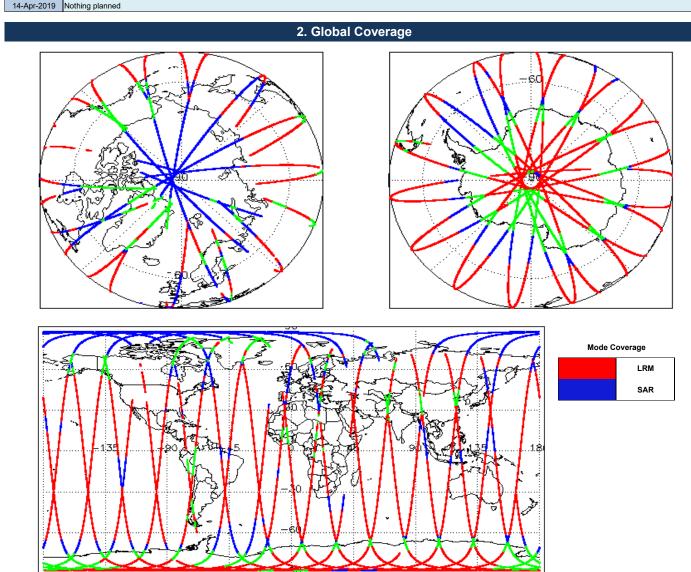


# IDEAS+ Daily Report for NOP data:

# <u>13/04/2019</u>

|                  |                                     | Check                                      | L1 & L2                      |
|------------------|-------------------------------------|--|------------------------------|
| port Production: | 15-Apr-2019                         | Server check: science-pds.cryosat.esa.int  | Nominal                      |
|                  |                                     | Server check: calval-pds.cryosat.esa.int   | Nominal                      |
| rocessor Used:   | CryoSat Ocean Processor             | Product Software Check                     | Nominal                      |
| Data Used:       | Near Real Time Ocean Products (NOP) | Product Format Check                       | Nominal                      |
|                  | L1B & L2 Science Data               | Product Header Analysis                    | Nominal                      |
|                  | ·                                   | Auxiliary Data File Usage Check            | Nominal                      |
|                  |                                     | Auxiliary Correction Error Check           | Nominal                      |
|                  |                                     | Measurement Confidence Data Check          | See Section 4.5, 4.6 and 5.5 |
|                  |                                     | Range, SWH & Backscatter Measurement Check | See Section 5.6, 5.7         |
|                  |                                     | Ocean Retracking Quality Check             | See Section 5.8              |

| 12-Apr-2019 | None          |  |
|-------------|---------------|--|
| 13-Apr-2019 | None          |  |
| 14 Apr 2010 | Nothing plane |  |



# 3. Instrument Configuration

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

SIRAL - A

0

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.

# 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:
1

| Product   | Test Failed         | Description   |
|---|---------------------|---|
| CS_OFFL_SIR_NOPM1B_20190413T135819_20190413T141135_C001 | Power scaling error | There is an error in the scaling of the L1B waveform for one or more<br>records |
|   |                     |   |

## 4.6 L1B Waveform Group Data Check

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

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

20

### Number of products with errors:

| Product   | Test Failed  | Description  |
|---|--------------|--|
| CS_OFFL_SIR_NOPM1B_20190413T022051_20190413T023617_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPM1B_20190413T023818_20190413T024741_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T012929_20190413T013048_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T021903_20190413T022040_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T034105_20190413T034150_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T035805_20190413T035953_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T061855_20190413T061919_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T071651_20190413T071808_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T085525_20190413T085642_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T093307_20190413T093353_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T111537_20190413T111750_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T192519_20190413T192956_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPN1B_20190413T234759_20190413T234904_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20190413T020425_20190413T020855_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20190413T031357_20190413T031527_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20190413T075307_20190413T075500_C001 | Loss of Echo | The tracking echo is missing for one or more records |
| CS_OFFL_SIR_NOPR1B_20190413T110420_20190413T110432_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).

Number of products with errors:

### 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.

| Product   | Test Failed         | Description   |
|---|---------------------|---|
| CS_OFFL_SIR_NOPM_2_20190413T135819_20190413T141135_C001 | Power scaling error | There is an error in the scaling of the L2 waveform for one or more records |

## 5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags 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.

Ocean Range Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 78

| ProductTest FailedDescriptionCS_OFFL_SIR_NOPM_2_20190413T00042_20190413T002322_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T004158_20190413T005911_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T01052_20190413T01128_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T014820_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T024025_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021157_20190413T024025_C001Ocean Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021903_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023618_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T03245_20190413T032709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T033452_0190413T034702_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR  | ore |
|---|---|
| CS_OFFL_SIR_NOPM_2_201904131004138_20190413100591_C001Ocean Range Averaging Statusrecords.CS_OFFL_SIR_NOPM_2_20190413T010352_20190413T011128_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T013108_20190413T014620_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T020425_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T021157_20190413T021401_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021903_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T032818_20190413T023709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034456_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or m<br>records.CS_OFFL_SIR_NOPM_2_20190413T034450_20190413T034565_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been  | ore |
| CS_OFFL_SIR_NOPM_2_201904131010332_201904131014820_C001Ocean Range Averaging Statusrecords.CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T014820_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T015010_20190413T020425_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T021157_20190413T021401_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or moreCS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021903_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or moreCS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or moreCS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T034152_20190413T032709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T03425_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T034456_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T034456_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or mmCS_OFFL_SIR_NOPM_2_20190413T034456_20190413T034656_C001Ice Range Av   | ore<br>ore<br>ore<br>ore<br>ore<br>ore  |
| CS_OFFL_SIR_NOPM_2_201904131013108_201904131014820_C001Ocean Range Averaging Statusrecords.CS_OFFL_SIR_NOPM_2_20190413T0101_00190413T020425_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021157_20190413T021401_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021401_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T033245_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034056_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034956_20190413T034956_20190413T034956_20190413T034956_20190413T034956_20190413T034956_   | ore<br>ore<br>ore<br>ore                |
| CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T02040_C001Ice Range Averaging Statusrecords.CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021903_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T023617_C001Ice Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T033455_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034656_C001Ice Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T0440024_20190413T044601_C001Ice Range Averaging StatusThe Ocean Range Averaging Status   | Dre<br>Dre<br>Dre<br>Dre                |
| CS_OFFL_SIR_NOPM_2_201904131021157_201904131021401_C001Ice Range Averaging Statusrecords.CS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001Ccean Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T033245_20190413T034105_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034056_0190413T034656_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034056_0190413T034656_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one or more<br>records.CS_OFFL_SIR_NOPM_2_20190413T034056_20190413T034656_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag  | ore<br>ore<br>ore                       |
| CS_OFFL_SIR_NOPM_2_201904131021439_201904131021905_C001       Ide Range Averaging Status       records.         CS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T033245_20190413T034105_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034956_0190413T034656_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034056_0190413T034055_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging   | ore<br>ore<br>ore                       |
| CS_OFFL_SIR_NOPM_2_20190413102301_201904131023617_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or marrecords.         CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or marrecords.         CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or marrecords.         CS_OFFL_SIR_NOPM_2_20190413T03245_20190413T034105_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or marrecords.         CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or marrecords.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034656_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T035805_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.   | ore<br>ore<br>ore                       |
| CS_OFFL_SIR_NOPM_2_201904131023816_201904131024741_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_NOPM_2_20190413T031527_20190413T032709_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or me records.         CS_OFFL_SIR_NOPM_2_20190413T033245_20190413T034105_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or me records.         CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or me records.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034655_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or me records.         CS_OFFL_SIR_NOPM_2_20190413T0440024_20190413T041601_C001       Ocean Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.  | ore                                     |
| CS_OFFL_SIR_NOPM_2_20190413103157_201904131032705_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_NOPM_2_20190413T03245_20190413T034105_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034150_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or merecords.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T035805_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or mere records.  | ore                                     |
| CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034656_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034656_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T034056_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or more records.   |   |
| CS_OFFL_SIR_NOPM_2_201904131034150_201904131034056_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_NOPM_2_20190413T034956_20190413T035805_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or more records.         CS_OFFL_SIR_NOPM_2_20190413T040024_20190413T041601_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or more records.   | ore                                     |
| CS_OFFL_SIR_NOPM_2_201904131034956_20190413103805_C001 To the Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or minecords.  |   |
| CS_OFFL_SIR_INOPM_2_201904131040024_201904131041001_C001 Ocean Range Averaging Status records.  |   |
| The Ocean Banga Averaging Status Flashers and fasters |   |
| CS_OFFL_SIR_NOPM_2_20190413T045856_20190413T052606_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or mercords.  | ore                                     |
| CS_OFFL_SIR_NOPM_2_20190413T052841_20190413T053046_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T053122_20190413T053643_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T053928_20190413T060314_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or minecords.   |   |
| CS_OFFL_SIR_NOPM_2_20190413T063634_20190413T064750_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or me records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T065328_20190413T070437_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  | re                                      |
| CS_OFFL_SIR_NOPM_2_20190413T071049_20190413T071651_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T071814_20190413T073955_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or minecords.   |   |
| CS_OFFL_SIR_NOPM_2_20190413T075500_20190413T075557_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T081011_20190413T084345_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or morecords.   | re                                      |
| CS_OFFL_SIR_NOPM_2_20190413T084958_20190413T085525_C001 Ice Range Averaging Status Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T085706_20190413T090314_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more cords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T093412_20190413T093626_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more cords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T094923_20190413T095912_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more cords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T100047_20190413T102308_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or mercords.  | re                                      |
| CS_OFFL_SIR_NOPM_2_20190413T103004_20190413T103413_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T103617_20190413T105551_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more cords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T112746_20190413T120121_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or morecords.   | re                                      |
| CS_OFFL_SIR_NOPM_2_20190413T120429_20190413T120859_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T120918_20190413T121310_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T121603_20190413T121856_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T122000_20190413T125128_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or morecords.   |   |
| CS_OFFL_SIR_NOPM_2_20190413T131131_20190413T131839_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or morecords.   |   |
| CS_OFFL_SIR_NOPM_2_20190413T132443_20190413T134052_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more cords.  | re                                      |
| CS_OFFL_SIR_NOPM_2_20190413T134241_20190413T134757_C001 Ice Range Averaging Status The loe Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T135819_20190413T141135_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T141349_20190413T142612_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T145316_20190413T150340_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or marcords.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T150520_20190413T151949_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or morecords.   | ле                                      |
| CS_OFFL_SIR_NOPM_2_20190413T152206_20190413T152708_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records.  |   |
| CS_OFFL_SIR_NOPM_2_20190413T154216_20190413T154800_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or mercords.  | ле                                      |

| CS_OFFL_SIR_NOPM_2_20190413T155320_20190413T155727_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more   |
|---|------------------------------|--|
| CS OFFL SIR NOPM 2 20190413T155850 20190413T155948 C001 | Ocean Range Averaging Status | records.<br>The Ocean Range Averaging Status Flag has been set for one or more   |
| CS_OFFL_SIR_NOPM_2_20190413T160011_20190413T160600_C001 | Ocean Range Averaging Status | records.<br>The Ocean Range Averaging Status Flag has been set for one or more   |
| CS_OFFL_SIR_NOPM_2_20190413T163738_20190413T165902_C001 | Ocean Range Averaging Status | records.<br>The Ocean Range Averaging Status Flag has been set for one or more   |
| CS_OFFL_SIR_NOPM_2_20190413T170230_20190413T170625_C001 | Ice Range Averaging Status   | records.<br>The loe Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T170646_20190413T170909_C001 | Ice Range Averaging Status   | The loc Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T171242_20190413T174120_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T181321_20190413T183855_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T184016_20190413T184538_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T184545_20190413T184910_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T185217_20190413T190338_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T190915_20190413T192519_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T201207_20190413T201827_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T202017_20190413T202816_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T203129_20190413T210526_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T211850_20190413T211952_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T214039_20190413T215743_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T215950_20190413T220504_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T221106_20190413T223316_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T223601_20190413T224530_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more<br>records.   |
| CS_OFFL_SIR_NOPM_2_20190413T225658_20190413T230141_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T231610_20190413T232212_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T232359_20190413T233630_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPM_2_20190413T235054_20190414T002332_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPN_2_20190413T003021_20190413T003257_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPN_2_20190413T030935_20190413T030944_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPN_2_20190413T152743_20190413T152745_C001 | Ice Range Averaging Status   | The Ice Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPR_2_20190413T034656_20190413T034750_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPR_2_20190413T052606_20190413T052724_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPR_2_20190413T061514_20190413T061725_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.  |
| CS_OFFL_SIR_NOPR_2_20190413T130632_20190413T131131_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more records.<br>The Ocean Range Averaging Status Flag has been set for one or more    |
| CS_OFFL_SIR_NOPR_2_20190413T135209_20190413T135819_C001 | Ocean Range Averaging Status | The Ocean Range Averaging Status Flag has been set for one or more<br>records.<br>The Ocean Range Averaging Status Flag has been set for one or more |
| CS_OFFL_SIR_NOPR_2_20190413T234750_20190413T234759_C001 | Ocean Range Averaging Status | records.   |

## 5.7 L2 SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH Averaging Status flag and an Ocean and Ice Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are three common status flags 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.

SWH Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ocean Backscatter Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 77

| Product   | Test Failed   | Description  |
|---|---|--|
| CS_OFFL_SIR_NOPM_2_20190413T000042_20190413T002322_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T004158_20190413T005911_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T010352_20190413T011128_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T012809_20190413T012928_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_NOPM_2_20190413T013108_20190413T014820_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T015010_20190413T020425_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T021157_20190413T021401_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_NOPM_2_20190413T021459_20190413T021903_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_NOPM_2_20190413T022051_20190413T023617_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T023818_20190413T024741_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |

CS\_OFFL\_SIR\_NOPM\_2\_20190413T031527\_20190413T032709\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T033245\_20190413T034105\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T034150\_20190413T034656\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T034956\_20190413T035805\_C001 CS OFFL SIR NOPM 2 20190413T040024 20190413T041601 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T045856\_20190413T052606\_C001 CS OFFL SIR NOPM 2 20190413T052841 20190413T053046 C001 CS OFFL SIR NOPM 2 20190413T053122 20190413T053643 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T053928\_20190413T060314\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T063634\_20190413T064750\_C001 CS OFFL SIR NOPM 2 20190413T065328 20190413T070437 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T071049\_20190413T071651\_C001 CS OFFL SIR NOPM 2 20190413T071814 20190413T073955 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T081011\_20190413T084345\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T084958\_20190413T085525\_C001 CS OFFL SIR NOPM 2 20190413T085706 20190413T090314 C001 CS OFFL SIR NOPM 2 20190413T094923 20190413T095912 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T100047\_20190413T102308\_C001 CS OFFL SIR NOPM 2 20190413T103004 20190413T103413 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T103617\_20190413T105551\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T112746\_20190413T120121\_C001 CS OFFL SIR NOPM 2 20190413T120429 20190413T120859 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T120918\_20190413T121310\_C001 CS OFFL SIR NOPM 2 20190413T121603 20190413T121856 C001 CS OFFL SIR NOPM 2 20190413T122000 20190413T125128 C001 CS OFFL SIR NOPM 2 20190413T131131 20190413T131839 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T132321\_20190413T132440\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T132443\_20190413T134052\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T134241\_20190413T134757\_C001 CS OFFL SIR NOPM 2 20190413T135819 20190413T141135 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T141349\_20190413T142612\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T145316\_20190413T150340\_C001 CS OFFL SIR NOPM\_2\_20190413T150520\_20190413T151949\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T152206\_20190413T152708\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T152715\_20190413T152726\_C001 CS OFFL SIR NOPM 2 20190413T154216 20190413T154800 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T155320\_20190413T155727\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T155850\_20190413T155948\_C001 CS OFFL SIR NOPM 2 20190413T163738 20190413T165902 C001 CS OFFL SIR NOPM 2 20190413T170230 20190413T170625 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T170646\_20190413T170909\_C001 CS OFFL SIR NOPM 2 20190413T171242 20190413T174120 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T181321\_20190413T183855\_C001 CS OFFL SIR NOPM 2 20190413T184016 20190413T184538 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T184545\_20190413T184910\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T185217\_20190413T190338\_C001 CS OFFL SIR NOPM 2 20190413T190915 20190413T192519 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T202017\_20190413T202816\_C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T203129\_20190413T210526\_C001 CS OFFL SIR NOPM 2 20190413T211850 20190413T211952 C001 CS\_OFFL\_SIR\_NOPM\_2\_20190413T214039\_20190413T215743\_C001 SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status SWH Averaging Status, Ocean

Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status The SWH and Ocean Averaging Status Flags have been set for one or more records.

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records.

The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or

more records. The Ice Backscatter Averaging Status Flag has been set for one or more

records. The Ice Backscatter Averaging Status Flag has been set for one or more

records. The SWH and Ocean Averaging Status Flags have been set for one or

more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

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The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

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The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records

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The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

| CS_OFFL_SIR_NOPM_2_20190413T215950_20190413T220504_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
|---|---|--|
| CS_OFFL_SIR_NOPM_2_20190413T221106_20190413T223316_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T223601_20190413T224530_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T225658_20190413T230141_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T231610_20190413T232212_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T232359_20190413T233630_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPM_2_20190413T235054_20190414T002332_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPN_2_20190413T003021_20190413T003257_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_NOPN_2_20190413T030935_20190413T030944_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPN_2_20190413T152743_20190413T152745_C001 | Ice Backscatter Averaging Status                            | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_NOPR_2_20190413T034656_20190413T034750_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPR_2_20190413T052606_20190413T052724_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPR_2_20190413T061514_20190413T061725_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPR_2_20190413T130632_20190413T131131_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPR_2_20190413T135209_20190413T135819_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
| CS_OFFL_SIR_NOPR_2_20190413T234750_20190413T234759_C001 | SWH Averaging Status, Ocean<br>Backscatter Averaging Status | The SWH and Ocean Averaging Status Flags have been set for one or<br>more records. |
|   |   |  |

# 5.8 L2 Ocean Retracking Quality Check

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.

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Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.