

### 1. Overview

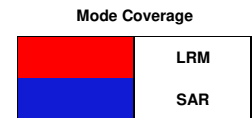
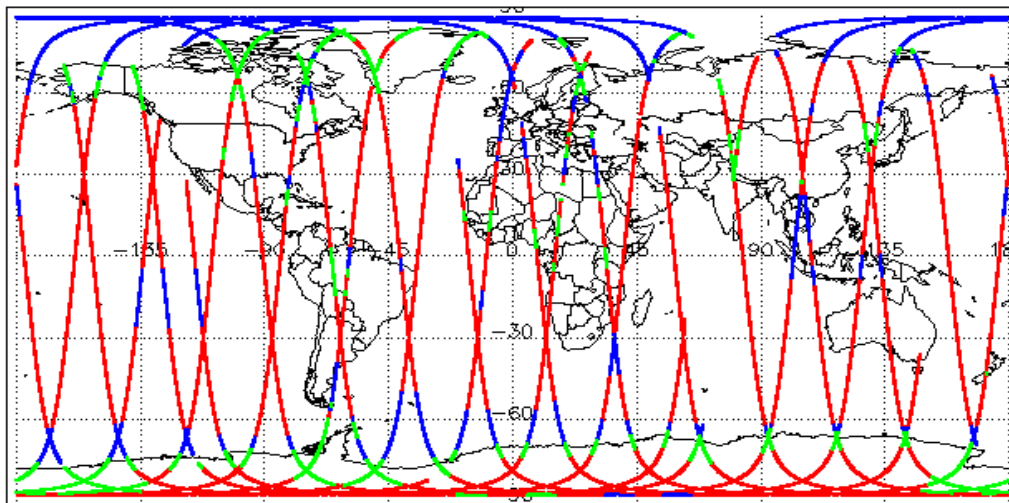
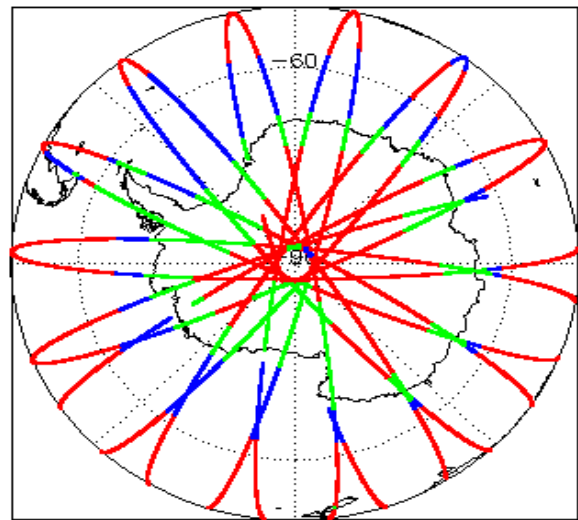
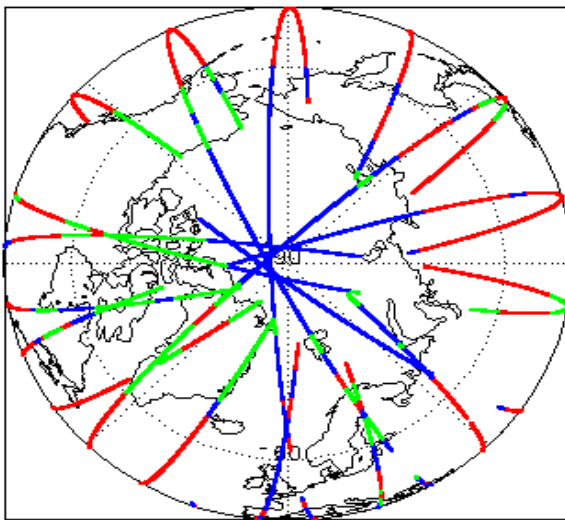
<b>Report Production:</b>	07-Jan-2019
<b>Processor Used:</b>	CryoSat Ocean Processor
<b>Data Used:</b>	Near Real Time Ocean Products (NOP) L1B & L2 Science Data

Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 5.2
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

#### Mission / Instrument News

24-Dec-2018	None
25-Dec-2018	None
26-Dec-2018	Nothing planned

### 2. Global Coverage



### 3. Instrument Configuration

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

<b>SIRAL instrument(s) in use:</b>	SIRAL - A
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### 4. NOP Level 1B Data Quality Check

#### 4.1 L1B Product Format Check

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

Number of products with errors: 0

#### 4.2 L1B Product Header Analysis

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

Number of products with errors: 0

### 4.3 L1B Auxiliary Data File Usage Check

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

Number of products with errors: 0

### 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.

Number of products with errors: 18

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20181225T075237_20181225T080855_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20181225T194625_20181225T200127_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T005813_20181225T010231_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T011013_20181225T011049_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T060744_20181225T061135_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T092557_20181225T092812_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T141558_20181225T141638_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T153710_20181225T153853_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T183228_20181225T183413_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T191121_20181225T191539_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T191646_20181225T191753_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T201535_20181225T201702_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20181225T205122_20181225T205427_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20181225T020202_20181225T020523_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20181225T034041_20181225T034407_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20181225T082039_20181225T082438_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20181225T114548_20181225T114813_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20181225T150410_20181225T150736_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: 0

### 5.4 L2 Auxiliary Correction Error Check

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

Number of products with errors: 0

### 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: 2

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20181225T090528_20181225T091347_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_NOPM_2_20181225T105051_20181225T105509_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.

**Number of products with errors:** 84

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20181224T234549_20181225T001035_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T001255_20181225T001813_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T002544_20181225T003613_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T004151_20181225T005813_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T012231_20181225T014053_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T014446_20181225T014927_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T015255_20181225T020049_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T020524_20181225T023758_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T031330_20181225T032744_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T033226_20181225T033739_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T034408_20181225T040551_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T040836_20181225T041813_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T042924_20181225T043031_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T043131_20181225T043238_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T044839_20181225T045447_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T045634_20181225T050702_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T051408_20181225T051640_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T052337_20181225T055649_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T061223_20181225T064420_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T065352_20181225T065547_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T065745_20181225T070051_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T070247_20181225T071812_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T072015_20181225T073049_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T074745_20181225T074952_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T075237_20181225T080855_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T083224_20181225T083507_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T083523_20181225T083951_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T084219_20181225T085638_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T085817_20181225T090100_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T093548_20181225T094100_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T094344_20181225T100722_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T101019_20181225T101858_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T102125_20181225T104621_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T111910_20181225T114547_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T120043_20181225T123014_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T125337_20181225T130849_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T131422_20181225T132425_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T133146_20181225T133732_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T134019_20181225T134515_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T134911_20181225T135558_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T141638_20181225T141730_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T143026_20181225T150410_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T152133_20181225T153710_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T160925_20181225T161900_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T162139_20181225T163738_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_NOPM_2_20181225T163745_20181225T164314_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T164910_20181225T165051_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T165058_20181225T165509_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T165951_20181225T171920_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T171956_20181225T172433_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T181506_20181225T182231_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T182426_20181225T182949_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T183008_20181225T183228_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T184054_20181225T185321_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T185426_20181225T191121_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T191539_20181225T191646_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T193304_20181225T194421_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T194625_20181225T200127_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200352_20181225T200847_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200854_20181225T200901_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200907_20181225T200918_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200925_20181225T201044_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T201737_20181225T203007_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T203448_20181225T204642_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T212545_20181225T214043_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T214323_20181225T214800_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T214838_20181225T214953_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T215448_20181225T222120_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T232331_20181225T232714_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T232736_20181225T233102_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T233412_20181225T234533_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T235103_20181226T000122_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T083507_20181225T083523_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T151603_20181225T151721_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T164454_20181225T164910_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T193104_20181225T193304_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T214817_20181225T214822_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T134515_20181225T134911_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T141244_20181225T141336_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T141914_20181225T142702_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T152051_20181225T152133_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T182950_20181225T182955_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T185322_20181225T185426_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T233244_20181225T233412_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more 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.

**Number of products with errors:** 85

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20181224T234549_20181225T001035_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T001255_20181225T001813_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T001819_20181225T002145_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T002544_20181225T003613_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.





CS_OFFL_SIR_NOPM_2_20181225T184054_20181225T185321_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T185426_20181225T191121_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T191539_20181225T191646_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T193304_20181225T194421_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T194625_20181225T200127_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200352_20181225T200847_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200854_20181225T200901_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T200925_20181225T201044_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T201737_20181225T203007_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T203448_20181225T204642_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T212545_20181225T214043_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T214323_20181225T214800_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T214838_20181225T214953_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T215448_20181225T222120_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T232331_20181225T232714_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T232736_20181225T233102_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T233412_20181225T234533_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20181225T235103_20181226T000122_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T083507_20181225T083523_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T151603_20181225T151721_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T164454_20181225T164910_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T193104_20181225T193304_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20181225T214817_20181225T214822_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T134515_20181225T134911_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T141244_20181225T141336_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T141914_20181225T142702_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T152051_20181225T152133_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T182950_20181225T182955_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T185322_20181225T185426_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20181225T233244_20181225T233412_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or 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.

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

**Number of products with errors:** 51