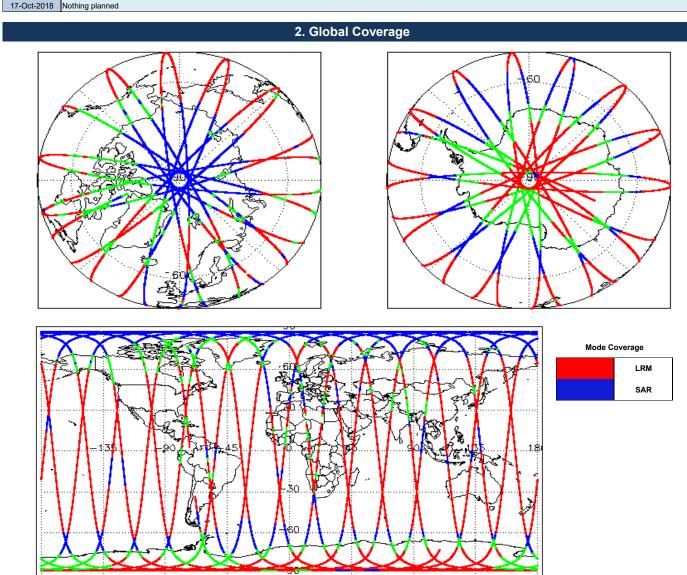


# IDEAS+ Daily Report for IOP data:

# <u>16/10/2018</u>

Report Production:	19-Oct-2018	Check	L1 & L2	P2P
		Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
rocessor useu.	CryoSal Ocean Processor	Product Software Check	Nominal	Nominal
	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
	L1B, L2 & P2P Science Data	Product Header Analysis	See Section 5.2	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	Nominal	Nominal
		Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
		Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.
		Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

wission / instrument news			
15-Oct-2018	None		
16-Oct-2018	None		
17 Oct 2010	Mathing planes		



# 3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20181016T005921_20181016T010525_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_20181016T010528_20181016T010845_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

# 4.6 L1B Waveform Group Data Check

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

2

16

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

### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20181016T091750_20181016T094906_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20181016T100806_20181016T102344_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20181016T225103_20181016T230550_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20181016T233937_20181016T235540_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T000612_20181016T001219_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T004756_20181016T005215_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T123044_20181016T123255_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T124706_20181016T124828_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T140957_20181016T141444_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T203746_20181016T203834_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T203933_20181016T204334_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T222136_20181016T222230_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20181016T235541_20181016T235838_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20181016T171112_20181016T171202_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20181016T222231_20181016T222811_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20181016T231757_20181016T232258_C001	Loss of Echo	The tracking echo is missing for one or more records

# 5. IOP 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: 1

### Product

CS\_OFFL\_SIR\_IOPN\_2\_20181016T183309\_20181016T183312\_C001

Test Failed Percentage of processing errors detected greater than minimum acceptable threshold.

## 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\_IOPM\_2\_20181016T005921\_20181016T010525\_C001 Power scaling error There is an error in the scaling of the L2 waveform for one or more records CS\_OFFL\_SIR\_IOPM\_2\_20181016T010528\_20181016T010845\_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. 87

		<b>•</b> 1.4
Product CS_OFFL_SIR_IOPM_2_20181015T235927_20181016T000432_C001	Test Failed Ice Range Averaging Status	Description The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T000456_20181016T000612_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T003227_20181016T003450_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T003613_20181016T004003_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T011939_20181016T013514_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T013922_20181016T014348_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T015121_20181016T022446_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T025010_20181016T031410_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T031742_20181016T032302_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T032309_20181016T032633_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T033019_20181016T034104_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T034640_20181016T040148_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T042842_20181016T045331_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T045728_20181016T050539_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T051109_20181016T054318_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T055520_20181016T055724_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T055727_20181016T055827_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T062446_20181016T062550_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T062706_20181016T063131_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T064950_20181016T071040_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T071327_20181016T072512_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T073431_20181016T073900_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T075446_20181016T075931_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T080119_20181016T081059_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T081755_20181016T082128_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T082840_20181016T083328_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T083338_20181016T090318_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T091750_20181016T094906_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T100325_20181016T100509_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T100806_20181016T102344_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T102347_20181016T102458_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T102939_20181016T103636_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T105803_20181016T111339_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T111958_20181016T113107_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T114020_20181016T114443_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T114735_20181016T120126_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T120306_20181016T121822_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T123957_20181016T124706_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181016T124829_20181016T125316_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20181016T125605\_20181016T131108\_C001 CS OFFL SIR IOPM 2 20181016T131512 20181016T132352 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T132724\_20181016T134845\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T141708\_20181016T145041\_C001 CS OFFL SIR IOPM 2 20181016T145716 20181016T150148 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T150650\_20181016T153046\_C001 CS OFFL SIR IOPM 2 20181016T154247 20181016T154406 C001 CS OFFL SIR IOPM 2 20181016T160107 20181016T160144 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T160158\_20181016T161334\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T161911\_20181016T162827\_C001 CS OFFL SIR IOPM 2 20181016T163633 20181016T164225 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T164556\_20181016T171112\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T173454\_20181016T180757\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T181539\_20181016T182056\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T182737\_20181016T182958\_C001 CS OFFL SIR IOPM 2 20181016T185826 20181016T190232 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T191152\_20181016T191221\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T191244\_20181016T192342\_C001 CS OFFL SIR IOPM 2 20181016T192628 20181016T194745 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T195421\_20181016T195540\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T195548\_20181016T195955\_C001 CS OFFL SIR IOPM 2 20181016T200534 20181016T201502 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T201650\_20181016T202402\_C001 CS OFFL SIR IOPM 2 20181016T202446 20181016T202925 C001 CS OFFL SIR IOPM 2 20181016T205121 20181016T212634 C001 CS OFFL SIR IOPM 2 20181016T212921 20181016T213438 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T213458\_20181016T213743\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T214540\_20181016T221553\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T221734\_20181016T222136\_C001 CS OFFL SIR IOPM 2 20181016T223157 20181016T223619 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T223630\_20181016T224859\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T225103\_20181016T230550\_C001 CS OFFL SIR IOPM\_2\_20181016T230834\_20181016T231336\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T232258\_20181016T233317\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T233937\_20181016T235540\_C001 CS OFFL SIR IOPN 2 20181016T032634 20181016T032751 C001 CS OFFL SIR IOPN 2 20181016T150148 20181016T150408 C001 CS OFFL SIR IOPN 2 20181016T154441 20181016T154458 C001 CS OFFL SIR IOPN 2 20181016T191145 20181016T191151 C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T195955\_20181016T200120\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T213744\_20181016T213928\_C001 CS OFFL SIR IOPN 2 20181016T231539 20181016T231757 C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T150409\_20181016T150649\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T161334\_20181016T161910\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T185525\_20181016T185659\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T194745\_20181016T195008\_C001 CS OFFL SIR IOPR 2 20181016T203636 20181016T203746 C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T222827\_20181016T222850\_C001

Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more ecords 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. 85

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20181015T235927_20181016T000432_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
CS_OFFL_SIR_IOPM_2_20181016T000456_20181016T000612_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
CS_OFFL_SIR_IOPM_2_20181016T003613_20181016T004003_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_IOPM_2_20181016T011939_20181016T013514_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_IOPM_2_20181016T013922_20181016T014348_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
CS_OFFL_SIR_IOPM_2_20181016T015121_20181016T022446_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_IOPM_2_20181016T025010_20181016T031410_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T031742_20181016T032302_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
S_OFFL_SIR_IOPM_2_20181016T032309_20181016T032633_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
S_OFFL_SIR_IOPM_2_20181016T033019_20181016T034104_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T034640_20181016T040148_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T042842_20181016T045331_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T045728_20181016T050539_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mor records.
S_OFFL_SIR_IOPM_2_20181016T051109_20181016T054318_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T055520_20181016T055724_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T062446_20181016T062550_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T062706_20181016T063131_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T064950_20181016T071040_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T071327_20181016T072512_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T073431_20181016T073900_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T075446_20181016T075931_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T080119_20181016T081059_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T081755_20181016T082128_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
S_OFFL_SIR_IOPM_2_20181016T082840_20181016T083328_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T083338_20181016T090318_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T091750_20181016T094906_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T100325_20181016T100509_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
S_OFFL_SIR_IOPM_2_20181016T100806_20181016T102344_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T102347_20181016T102458_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T102939_20181016T103636_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T105803_20181016T111339_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T111958_20181016T113107_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T113726_20181016T113948_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
S_OFFL_SIR_IOPM_2_20181016T114020_20181016T114443_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
S_OFFL_SIR_IOPM_2_20181016T114735_20181016T120126_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T120306_20181016T121822_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T123957_20181016T124706_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T124829_20181016T125316_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T125605_20181016T131108_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T131512_20181016T132352_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
S_OFFL_SIR_IOPM_2_20181016T132724_20181016T134845_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T141708_20181016T145041_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
S_OFFL_SIR_IOPM_2_20181016T145716_20181016T150148_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or mo records.
CS_OFFL_SIR_IOPM_2_20181016T150650_20181016T153046_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\_IOPM\_2\_20181016T160107\_20181016T160144\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T160158\_20181016T161334\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T161911\_20181016T162827\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T163633\_20181016T164225\_C001 CS OFFL SIR IOPM 2 20181016T164556 20181016T171112 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T173454\_20181016T180757\_C001 CS OFFL SIR IOPM 2 20181016T181539 20181016T182056 C001 CS OFFL SIR IOPM 2 20181016T182737 20181016T182958 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T183201\_20181016T183308\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T185826\_20181016T190232\_C001 CS OFFL SIR IOPM 2 20181016T191152 20181016T191221 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T191244\_20181016T192342\_C001 CS OFFL SIR IOPM 2 20181016T192628 20181016T194745 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T195421\_20181016T195540\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T195548\_20181016T195955\_C001 CS OFFL SIR IOPM 2 20181016T200534 20181016T201502 C001 CS OFFL SIR IOPM 2 20181016T201650 20181016T202402 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T202446\_20181016T202925\_C001 CS OFFL SIR IOPM 2 20181016T205121 20181016T212634 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T212921\_20181016T213438\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T213458\_20181016T213743\_C001 CS OFFL SIR IOPM 2 20181016T214540 20181016T221553 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T221734\_20181016T222136\_C001 CS OFFL SIR IOPM 2 20181016T223630 20181016T224859 C001 CS OFFL SIR IOPM 2 20181016T225103 20181016T230550 C001 CS OFFL SIR IOPM 2 20181016T230834 20181016T231336 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T232258\_20181016T233317\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181016T233937\_20181016T235540\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T032634\_20181016T032751\_C001 CS OFFL SIR IOPN 2 20181016T150148 20181016T150408 C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T154441\_20181016T154458\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T191145\_20181016T191151\_C001 CS OFFL SIR IOPN 2 20181016T195955 20181016T200120 C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T213744\_20181016T213928\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20181016T231539\_20181016T231757\_C001 CS OFFL SIR IOPR 2 20181016T150409 20181016T150649 C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T161334\_20181016T161910\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T185525\_20181016T185659\_C001 CS OFFL SIR IOPR 2 20181016T194745 20181016T195008 C001 CS OFFL SIR IOPR 2 20181016T203636 20181016T203746 C001 CS\_OFFL\_SIR\_IOPR\_2\_20181016T222827\_20181016T222850\_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

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SWH Averaging Status, Ocean

Backscatter Averaging Status

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Backscatter Averaging Status Ice Backscatter Averaging Status

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

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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

## 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:

## 6. IOP L2 Pole-to-Pole Data Quality Check

# 6.1 P2P 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 NetCDF product file (.nc). Number of products with errors:

63

6.2 P2P 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				
6.3 P2P Auxiliary Data File Usage Check				
Each product is checked for missing Data Set Descriptors with respect to a pre	e-determined baseline and also to c	heck the validity of Auxiliary Data Files is correct.		
Number of products with errors: 0				
6.4 P2P Auxiliary Correction Error Check				
For all products, the auxiliary corrections within the Geophysical Group are che	ecked for the default error value (32			
Number of products with errors: 0				
6.5 P2P Measurement Confidence Data Check				
CryoSat P2P data includes a measurement confidence flag for each 20-Hz me	asurement record. The bit value of	this flag indicates any problems when set.		
Number of products with errors: 1				
Product	Test Failed	Description		
CS_OFFL_SIR_IOP_220181016T005423_20181016T014358_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records		
6.6 D2D Dange Messurement Check				
6.6 P2P Range Measurement Check				

CryoSat P2P 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 P2P 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. 30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181015T231509_20181016T000444_C003	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOP_2_20181016T000444_20181016T005423_C002	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOP 2 20181016T005423 20181016T014358 C001	Ocean Range Averaging Status, Ice	records. The Ocean and Ice Range Averaging Status Flags have been set for one
CS OFFL SIR IOP 2 20181016T014358 20181016T023337 C001	Range Averaging Status Ocean Range Averaging Status	or more records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOP 2 20181016T023337 20181016T032312 C001	Ocean Range Averaging Status, Ice	records. The Ocean and Ice Range Averaging Status Flags have been set for one
	Range Averaging Status Ocean Range Averaging Status, Ice	or more records. The Ocean and Ice Range Averaging Status Flags have been set for one
CS_OFFL_SIR_IOP_220181016T032312_20181016T041250_C001	Range Averaging Status Ocean Range Averaging Status, Ice	or more records. The Ocean and Ice Range Averaging Status Flags have been set for one
CS_OFFL_SIR_IOP_220181016T041250_20181016T050225_C001	Range Averaging Status	or more records.
CS_OFFL_SIR_IOP_220181016T050225_20181016T055204_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T055204_20181016T064139_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T064139_20181016T073117_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T073117_20181016T082052_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T082052_20181016T091031_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T091031_20181016T100006_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T100006_20181016T104944_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T104944_20181016T113919_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T113919_20181016T122858_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T122858_20181016T131833_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T131833_20181016T140812_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T140812_20181016T145747_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T145747_20181016T154725_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T154725_20181016T163700_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T163700_20181016T172639_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T172639_20181016T181614_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T181614_20181016T190552_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T190552_20181016T195527_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T195527_20181016T204506_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T204506_20181016T213441_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T213441_20181016T222419_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T222419_20181016T231354_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T231354_20181017T000333_C002	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

# 6.7 P2P SWH and Backscatter Measurement Check

CryoSat P2P 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 P2P 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. 30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181015T231509_20181016T000444_C003	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T000444_20181016T005423_C002	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_IOP_220181016T005423_20181016T014358_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T014358_20181016T023337_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_IOP_220181016T023337_20181016T032312_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T032312_20181016T041250_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T041250_20181016T050225_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T050225_20181016T055204_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T055204_20181016T064139_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T064139_20181016T073117_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T073117_20181016T082052_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T082052_20181016T091031_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_IOP_2_20181016T091031_20181016T100006_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_IOP_220181016T100006_20181016T104944_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_IOP_220181016T104944_20181016T113919_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T113919_20181016T122858_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T122858_20181016T131833_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T131833_20181016T140812_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T140812_20181016T145747_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T145747_20181016T154725_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T154725_20181016T163700_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_IOP_220181016T163700_20181016T172639_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T172639_20181016T181614_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_IOP_220181016T181614_20181016T190552_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T190552_20181016T195527_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_IOP_220181016T195527_20181016T204506_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status SWH Averaging Status, Ocean	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T204506_20181016T213441_C001	Backscatter Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T213441_20181016T222419_C001	Backscatter Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T222419_20181016T231354_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220181016T231354_20181017T000333_C002	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

# 6.8 P2P Ocean Retracking Quality Check

Cryosat P2P data includes an ocean retracking quality flag (field 19) 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.

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181016T000444_20181016T005423_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T014358_20181016T023337_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T023337_20181016T032312_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T032312_20181016T041250_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T041250_20181016T050225_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T050225_20181016T055204_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T055204_20181016T064139_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T064139_20181016T073117_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T082052_20181016T091031_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T091031_20181016T100006_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T100006_20181016T104944_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T104944_20181016T113919_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T113919_20181016T122858_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T122858_20181016T131833_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T131833_20181016T140812_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T140812_20181016T145747_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T145747_20181016T154725_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T154725_20181016T163700_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T163700_20181016T172639_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T172639_20181016T181614_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T181614_20181016T190552_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T190552_20181016T195527_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T195527_20181016T204506_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T204506_20181016T213441_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T213441_20181016T222419_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T222419_20181016T231354_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181016T231354_20181017T000333_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.