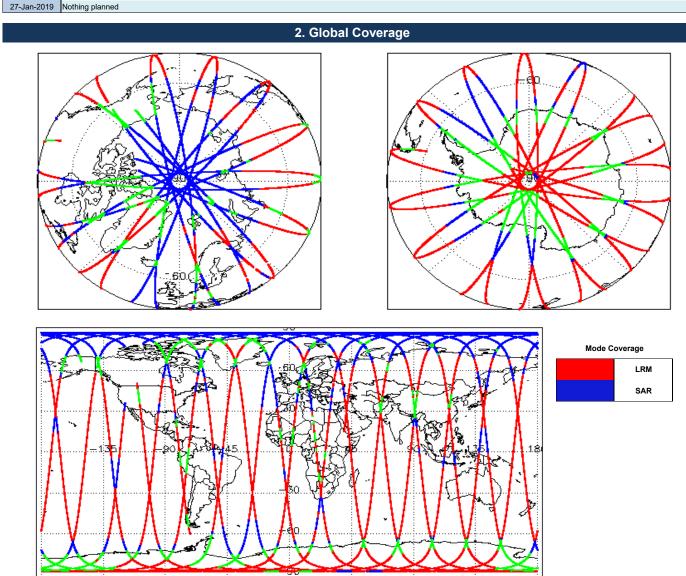


# **IDEAS+ Daily Report for IOP data:**

# 26/01/2019

1. Overview					
Check L1 & L2 P2P					
29-Jan-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal		
Cruce Set Occar Dresses	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal		
sed: CryoSat 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	Nominal		
	Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7		
	Ocean Retracking Quality Check	See Section 5.8	See Section 6.8		
1	CryoSat Ocean Processor ntermediate Ocean Products (IOP)	Check         29-Jan-2019       Server check: science-pds.cryosat.esa.int         CryoSat Ocean Processor       Server check: calval-pds.cryosat.esa.int         ntermediate Ocean Products (IOP)       Product Software Check         L1B, L2 & P2P Science Data       Product Format Check         Product Header Analysis       Auxiliary Data File Usage Check         Auxiliary Correction Error Check       Measurement Confidence Data Check         Range, SWH & Backscatter Measurement Check	29-Jan-2019         Check         L1 & L2           CryoSat Ocean Processor         Server check: science-pds.cryosat.esa.int         Nominal           Nominal         Server check: calval-pds.cryosat.esa.int         Nominal           Product Software Check         Nominal         Nominal           Product Software Check         Nominal         Nominal           Product Format Check         Nominal         Nominal           Auxiliary Data File Usage Check         Nominal         Nominal           Auxiliary Correction Error Check         Nominal         Nominal           Measurement Confidence Data Check         See Section 4.5, 4.6         See Section 5.6, 5.7		

Mission / Instrument News				
25-Jan-2019	None			
26-Jan-2019	None			



# 3. Instrument Configuration

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

SIRAL - A

0

SIRAL instrument(s) in use:

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:

### 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 pro	e-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 recor	rd. The bit value of this flag indic	ates any problems when set.		
Number of products with errors: 0				
4.5 L1B Measurement Confidence Data Check				
Nua Catil 4D data includes a magazina mante sufidance flag fau soch magazina	ment second. The hit velue of this			
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.				
	acto ado to a configuration locad	. This is being investigated and will be updated in the next ow update.		
	une au to a coningaration noord	This is being investigated and will be updated in the next over update.		
Number of products with errors: 0				
Aumber of products with errors:     0       4.6 L1B Waveform Group Data Check				
Number of products with errors:       0         4.6 L1B Waveform Group Data Check         CryoSat L1B data includes a waveform data flag for each measurement recommendation	d. The bit value of this flag indica			
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           Loss of Echo Flag: This flag is currently set for products over land, but this is	d. The bit value of this flag indica			
Aumber of products with errors:       0         4.6 L1B Waveform Group Data Check         CryoSat L1B data includes a waveform data flag for each measurement record         coss of Echo Flag: This flag is currently set for products over land, but this is         Number of products with errors:       17	d. The bit value of this flag indica			
Aumber of products with errors:       0         4.6 L1B Waveform Group Data Check         CryoSat L1B data includes a waveform data flag for each measurement record         coss of Echo Flag: This flag is currently set for products over land, but this is         Number of products with errors:       17         Product	d. The bit value of this flag indica s to be expected.	ates any problems when set.		
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         Loss of Echo Flag: This flag is currently set for products over land, but this is         Number of products with errors:       17         Product       CS_OFFL_SIR_IOPM1B_20190126T062327_20190126T063841_C001	d. The bit value of this flag indica s to be expected.	ates any problems when set.  Description		
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           Loss of Echo Flag: This flag is currently set for products over land, but this is	d. The bit value of this flag indica s to be expected. Test Failed Loss of Echo	ates any problems when set.           Description           The tracking echo is missing for one or more records		

Loss of Echo

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.

Test Failed

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).

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.

5. IOP Level 2 Data Quality Check

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

Percentage of processing errors detected greater than minimum acceptable threshold.

### 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.

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

0

Number of products with errors:

CS\_OFFL\_SIR\_IOPN1B\_20190126T021048\_20190126T021150\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190126T060816\_20190126T060957\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190126T151740\_20190126T152031\_C001

CS OFFL SIR IOPN1B 20190126T183630 20190126T183841 C001

CS\_OFFL\_SIR\_IOPN1B\_20190126T232843\_20190126T233243\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T035433\_20190126T040251\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T084046\_20190126T084646\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T101751\_20190126T101946\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T102200\_20190126T102707\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T114958\_20190126T115101\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T150620\_20190126T151252\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T190619\_20190126T190758\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190126T234053\_20190126T234522\_C001

CS\_OFFL\_SIR\_IOPR\_2\_20190126T114958\_20190126T115101\_C001.DBL

5.3 L2 Auxiliary Data File Usage Check

5.4 L2 Auxiliary Correction Error Check

5.5 L2 Measurement Confidence Data Check

5.1 L2 Product Format Check

5.2 L2 Product Header Analysis

Number of products with errors:

Product

### 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. 84

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190126T010535_20190126T010712_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T010911_20190126T011202_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T011402_20190126T011927_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T012520_20190126T014734_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T015020_20190126T015920_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T021215_20190126T021512_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T023132_20190126T025121_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T025327_20190126T025825_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T030429_20190126T033715_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T040252_20190126T042602_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T043537_20190126T043730_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T044411_20190126T045147_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T045150_20190126T050013_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T050031_20190126T050153_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T050635_20190126T051513_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T053427_20190126T055035_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T055249_20190126T060731_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T061431_20190126T061642_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T061727_20190126T062144_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T062327_20190126T063841_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T064054_20190126T065018_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T070838_20190126T070916_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T071828_20190126T072539_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T072542_20190126T072948_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T073447_20190126T074925_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T075223_20190126T080045_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T080302_20190126T082015_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T082056_20190126T082530_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T090153_20190126T090508_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T090511_20190126T092854_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T093122_20190126T093320_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T093407_20190126T093904_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T094153_20190126T100742_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T104036_20190126T105029_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T105608_20190126T110640_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T111328_20190126T111928_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T112100_20190126T114342_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T115723_20190126T115920_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T121224_20190126T124622_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T125236_20190126T125759_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T125958_20190126T130554_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T133849_20190126T133942_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T135213_20190126T140039_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T140325_20190126T142540_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T143130_20190126T143239_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20190126T143244\_20190126T143652\_C001 CS OFFL SIR IOPM 2 20190126T143906 20190126T145158 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T145345\_20190126T145943\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T153051\_20190126T160423\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T160638\_20190126T161136\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T161157\_20190126T161515\_C001 CS OFFL SIR IOPM 2 20190126T162237 20190126T165355 C001 CS OFFL SIR IOPM 2 20190126T165518 20190126T165630 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T171320\_20190126T172119\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T172700\_20190126T174335\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T174524\_20190126T175034\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T175111\_20190126T175243\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T180030\_20190126T181418\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T181632\_20190126T182810\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T185602\_20190126T190619\_C001 CS OFFL SIR IOPM 2 20190126T190759 20190126T192229 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T192445\_20190126T192945\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T193025\_20190126T193127\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T193822\_20190126T193954\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T194210\_20190126T195217\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T195453\_20190126T200010\_C001 CS OFFL SIR IOPM 2 20190126T203858 20190126T210157 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T210520\_20190126T210902\_C001 CS OFFL SIR IOPM 2 20190126T210924 20190126T211222 C001 CS OFFL SIR IOPM 2 20190126T211517 20190126T214406 C001 CS OFFL SIR IOPM 2 20190126T221534 20190126T224125 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T224302\_20190126T224816\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T225527\_20190126T230619\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T231158\_20190126T232842\_C001 CS OFFL SIR IOPM 2 20190126T235159 20190126T235847 C001 CS\_OFFL\_SIR\_IOPN\_2\_20190126T070734\_20190126T070837\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20190126T111928\_20190126T112058\_C001 CS OFFL SIR IOPN\_2\_20190126T151503\_20190126T151527\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20190126T161516\_20190126T161649\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20190126T201301\_20190126T201713\_C001 CS OFFL SIR IOPR 2 20190126T070307 20190126T070502 C001 CS OFFL SIR IOPR 2 20190126T105030 20190126T105607 C001 CS OFFL SIR IOPR 2 20190126T125918 20190126T125958 C001 CS OFFL SIR IOPR 2 20190126T174335 20190126T174345 C001

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

80

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190126T003327_20190126T003512_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T010535_20190126T010712_C001	00	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T010911_20190126T011202_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T011402_20190126T011927_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20190126T012520\_20190126T014734\_C001 CS OFFL SIR IOPM 2 20190126T015020 20190126T015920 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T021215\_20190126T021512\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T023132\_20190126T025121\_C001 CS OFFL SIR IOPM 2 20190126T025327 20190126T025825 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T030429\_20190126T033715\_C001 CS OFFL SIR IOPM 2 20190126T040252 20190126T042602 C001 CS OFFL SIR IOPM 2 20190126T043537 20190126T043730 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T044411\_20190126T045147\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T045150\_20190126T050013\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T050031\_20190126T050153\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T050635\_20190126T051513\_C001 CS OFFL SIR IOPM 2 20190126T053427 20190126T055035 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T055249\_20190126T060731\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T061727\_20190126T062144\_C001 CS OFFL SIR IOPM 2 20190126T062327 20190126T063841 C001 CS OFFL SIR IOPM 2 20190126T064054 20190126T065018 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T070838\_20190126T070916\_C001 CS OFFL SIR IOPM 2 20190126T071828 20190126T072539 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T073447\_20190126T074925\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T075223\_20190126T080045\_C001 CS OFFL SIR IOPM 2 20190126T080302 20190126T082015 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T082056\_20190126T082530\_C001 CS OFFL SIR IOPM 2 20190126T090511 20190126T092854 C001 CS OFFL SIR IOPM 2 20190126T093122 20190126T093320 C001 CS OFFL SIR IOPM 2 20190126T093407 20190126T093904 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T094153\_20190126T100742\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T104036\_20190126T105029\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T105608\_20190126T110640\_C001 CS OFFL SIR IOPM 2 20190126T111328 20190126T111928 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T112100\_20190126T114342\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T121224\_20190126T124622\_C001 CS OFFL SIR IOPM 2 20190126T125236 20190126T125759 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T125958\_20190126T130554\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T133601\_20190126T133806\_C001 CS OFFL SIR IOPM 2 20190126T133849 20190126T133942 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T135213\_20190126T140039\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T140325\_20190126T142540\_C001 CS OFFL SIR IOPM 2 20190126T143130 20190126T143239 C001 CS OFFL SIR IOPM 2 20190126T143244 20190126T143652 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T143906\_20190126T145158\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T145345\_20190126T145943\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T153051\_20190126T160423\_C001 CS OFFL SIR IOPM 2 20190126T160638 20190126T161136 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T161157\_20190126T161515\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T162237\_20190126T165355\_C001 CS OFFL SIR IOPM 2 20190126T165518 20190126T165630 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T172700\_20190126T174335\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T174524\_20190126T175034\_C001 CS OFFL SIR IOPM 2 20190126T175111 20190126T175243 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190126T180030\_20190126T181418\_C001 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

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

Ice Backscatter Averaging Status

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

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Ice Backscatter Averaging Status

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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.

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.

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.

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 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 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 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 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.

CS_OFFL_SIR_IOPM_2_20190126T181632_20190126T182810_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_20190126T185602_20190126T190619_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_20190126T190759_20190126T192229_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_20190126T192445_20190126T192945_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T193025_20190126T193127_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T194210_20190126T195217_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_20190126T195453_20190126T200010_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_20190126T203858_20190126T210157_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_20190126T210520_20190126T210902_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T210924_20190126T211222_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T211517_20190126T214406_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_20190126T221534_20190126T224125_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_20190126T224302_20190126T224816_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190126T225527_20190126T230619_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_20190126T231158_20190126T232842_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_20190126T235159_20190126T235847_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_IOPN_2_20190126T070734_20190126T070837_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190126T111928_20190126T112058_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_IOPN_2_20190126T151503_20190126T151527_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_IOPN_2_20190126T161516_20190126T161649_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_IOPN_2_20190126T201301_20190126T201713_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_IOPR_2_20190126T070307_20190126T070502_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_IOPR_2_20190126T105030_20190126T105607_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_IOPR_2_20190126T125918_20190126T125958_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_IOPR_2_20190126T174335_20190126T174345_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: 65

## 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:

#### 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:

## 6.3 P2P 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:

### 6.4 P2P Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767). 0

0

0

Number of products with errors:

#### 6.5 P2P Measurement Confidence Data Check

CryoSat P2P 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:

#### 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.

Number of products with errors: 29

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190126T002900_20190126T011835_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_2_20190126T011835_20190126T020813_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190126T020813_20190126T025748_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T025748_20190126T034727_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T034727_20190126T043702_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_220190126T043702_20190126T052640_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_220190126T052640_20190126T061615_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_220190126T061615_20190126T070554_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_220190126T070554_20190126T075529_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T075529_20190126T084508_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_220190126T084508_20190126T093442_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_220190126T093442_20190126T102421_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_220190126T102421_20190126T111356_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T111356_20190126T120335_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_2_20190126T120335_20190126T125310_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_220190126T125310_20190126T134248_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_220190126T134248_20190126T143223_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_220190126T143223_20190126T152202_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_220190126T152202_20190126T161137_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_220190126T161137_20190126T170115_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_220190126T170115_20190126T175050_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_220190126T175050_20190126T184029_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T184029_20190126T193004_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_220190126T193004_20190126T201943_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T201943_20190126T210917_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_220190126T210917_20190126T215856_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_220190126T215856_20190126T224831_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_220190126T224831_20190126T233810_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_220190126T233810_20190127T002745_C003	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has 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. 28

umber	of pro	ducts v	with er	rors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190126T002900_20190126T011835_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_220190126T011835_20190126T020813_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_220190126T020813_20190126T025748_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_220190126T025748_20190126T034727_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_220190126T034727_20190126T043702_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_220190126T043702_20190126T052640_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_220190126T052640_20190126T061615_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_220190126T061615_20190126T070554_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_220190126T070554_20190126T075529_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_220190126T075529_20190126T084508_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_220190126T084508_20190126T093442_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_220190126T093442_20190126T102421_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_220190126T102421_20190126T111356_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_220190126T111356_20190126T120335_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_220190126T120335_20190126T125310_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_220190126T125310_20190126T134248_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_220190126T134248_20190126T143223_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_220190126T143223_20190126T152202_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_220190126T152202_20190126T161137_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_2_20190126T161137_20190126T170115_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_220190126T170115_20190126T175050_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_2_20190126T175050_20190126T184029_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_20190126T184029_20190126T193004_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_220190126T193004_20190126T201943_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_220190126T201943_20190126T210917_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_2_20190126T210917_20190126T215856_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_220190126T215856_20190126T224831_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_220190126T224831_20190126T233810_C001	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.

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: 27

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190126T002900_20190126T011835_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T011835_20190126T020813_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T020813_20190126T025748_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T025748_20190126T034727_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T034727_20190126T043702_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T043702_20190126T052640_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T052640_20190126T061615_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T061615_20190126T070554_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T070554_20190126T075529_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T075529_20190126T084508_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T084508_20190126T093442_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T093442_20190126T102421_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T111356_20190126T120335_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.

CS_OFFL_SIR_IOP_220190126T120335_20190126T125310_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T125310_20190126T134248_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T134248_20190126T143223_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T143223_20190126T152202_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T152202_20190126T161137_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T161137_20190126T170115_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T170115_20190126T175050_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T175050_20190126T184029_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T184029_20190126T193004_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T193004_20190126T201943_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T201943_20190126T210917_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T210917_20190126T215856_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190126T215856_20190126T224831_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190126T233810_20190127T002745_C003	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.