

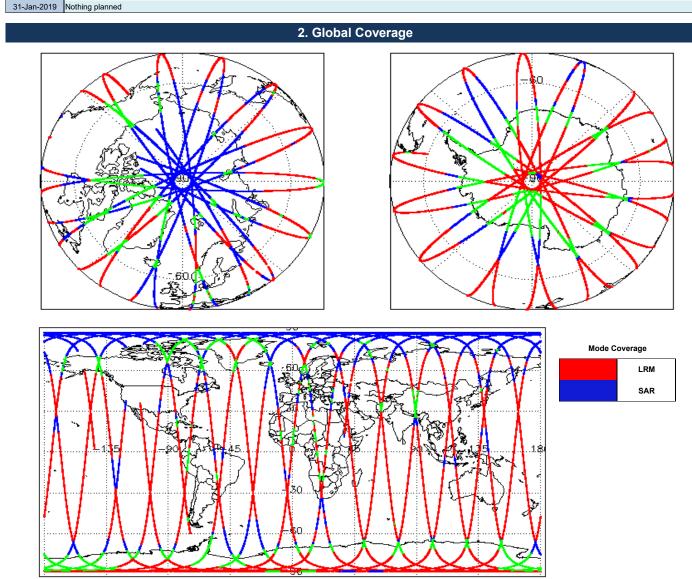
# IDEAS+ Daily Report for IOP data:

# 30/01/2019

1. Overview				
Report Production:	04-Feb-2019	Check	L1 & L2	P2P
report Production.	04-Feb-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Useu.		Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	Product Format Check	Nominal	Nominal
Data Useu.		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

Overview

Mission / Instrument News				
29-Jan-2019	None			
30-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 pr	e-determined baseline and also to c	heck 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 reco	rd. The bit value of this flag indicate	s 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 measure	ment record. The bit value of this fla	g indicates any problems when set.			
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts due to a configuration issue. Th	is is being investigated and will be updated in the next SW update.			
Number of products with errors: 0	-				
4.6 L1B Waveform Group Data Check					
4.6 L1B Waveform Group Data Check CryoSat L1B data includes a waveform data flag for each measurement recor	d. The bit value of this flag indicates	s any problems when set.			
•	-	any problems when set.			
CryoSat L1B data includes a waveform data flag for each measurement recor	-	s any problems when set.			
CryoSat L1B data includes a waveform data flag for each measurement recor Loss of Echo Flag: This flag is currently set for products over land, but this is	-	s any problems when set. Description			
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product	s to be expected.				
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001	s to be expected.	Description			
CryoSat L1B data includes a waveform data flag for each measurement recor Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19	s to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records			
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001 CS_OFFL_SIR_IOPM1B_20190130T221059_20190130T223633_C001 CS_OFFL_SIR_IOPN1B_20190130T003814_20190130T003850_C001	to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001 CS_OFFL_SIR_IOPM1B_20190130T221059_20190130T223633_C001	to be expected.	Description           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			
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001 CS_OFFL_SIR_IOPM1B_20190130T221059_20190130T0223633_C001 CS_OFFL_SIR_IOPN1B_20190130T003814_20190130T003850_C001 CS_OFFL_SIR_IOPN1B_20190130T011434_20190130T011744_C001	s to be expected.           Test Failed           Loss of Echo	Description           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			
CryoSat L1B data includes a waveform data flag for each measurement recorn Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001 CS_OFFL_SIR_IOPM1B_20190130T221059_20190130T0223633_C001 CS_OFFL_SIR_IOPM1B_20190130T003814_20190130T003850_C001 CS_OFFL_SIR_IOPN1B_20190130T011434_20190130T011744_C001 CS_OFFL_SIR_IOPN1B_20190130T020557_20190130T020613_C001	s to be expected.           Test Failed           Loss of Echo	Description           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			
CryoSat L1B data includes a waveform data flag for each measurement recornation           Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20190130T014528_20190130T015438_C001         10           CS_OFFL_SIR_IOPM1B_20190130T21059_20190130T223633_C001         10           CS_OFFL_SIR_IOPN1B_20190130T003814_20190130T003850_C001         10           CS_OFFL_SIR_IOPN1B_20190130T011434_20190130T011744_C001         10           CS_OFFL_SIR_IOPN1B_20190130T020557_20190130T020613_C001         10           CS_OFFL_SIR_IOPN1B_20190130T020557_20190130T020613_C001         10           CS_OFFL_SIR_IOPN1B_20190130T052321_20190130T052441_C001         10	s to be expected.           Test Failed           Loss of Echo           Loss of Echo	Description           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			

# 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:

# 5.2 L2 Product Header Analysis

CS\_OFFL\_SIR\_IOPN1B\_20190130T084155\_20190130T084646\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T093404\_20190130T093617\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T132946\_20190130T133047\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T151232\_20190130T151538\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T182722\_20190130T183023\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T183135\_20190130T183350\_C001

CS\_OFFL\_SIR\_IOPN1B\_20190130T224656\_20190130T224825\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190130T074430\_20190130T074535\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190130T132152\_20190130T132543\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190130T151538\_20190130T152323\_C001

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

Loss of Echo

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

Product	Test Failed
CS_OFFL_SIR_IOPR_2_20190130T015438_20190130T020428_C001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.

5. IOP Level 2 Data Quality Check

## 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

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

# 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. 81

Product CS_0FFL_SIR_IOPM_2_20190129T234141_20190130T001536_C001	Test Failed Ocean Range Averaging Status	Description The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190130T002829 20190130T003018 C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T010011_20190130T010218_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T010418_20190130T010711_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T010910_20190130T011433_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T012024_20190130T014242_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T014528_20190130T015438_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T020714_20190130T021035_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T022642_20190130T023243_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T023320_20190130T024633_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T024838_20190130T025332_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T025940_20190130T033205_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T035428_20190130T042109_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T043044_20190130T043237_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T043915_20190130T045533_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T045536_20190130T045700_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T050142_20190130T050922_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T052442_20190130T052747_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T053016_20190130T054541_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T054755_20190130T060249_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T060935_20190130T061149_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T061230_20190130T061649_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T061831_20190130T063329_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T063508_20190130T063755_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T063758_20190130T064936_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T071316_20190130T072020_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T072930_20190130T074430_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T074725_20190130T075553_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T075809_20190130T082057_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T085645_20190130T092358_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T092916_20190130T093404_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T093641_20190130T094001_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T094006_20190130T100308_C001	Ocean Range Averaging Status	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
CS_OFFL_SIR_IOPM_2_20190130T103542_20190130T104536_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20190130T105114_20190130T110143_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T110835_20190130T111432_C001	Ice Range Averaging Status	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
CS_OFFL_SIR_IOPM_2_20190130T111606_20190130T113619_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T113623_20190130T114502_C001	Ocean Range Averaging Status	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
CS_OFFL_SIR_IOPM_2_20190130T115229_20190130T115425_C001	Ocean Range Averaging Status	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
CS_0FFL_SIR_IOPM_2_20190130T120719_20190130T124133_C001	Ocean Range Averaging Status	records. The loc Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T124743_20190130T125303_C001	Ice Range Averaging Status	The Cocean Range Averaging Status Flag has been set for one or more The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T125940_20190130T130102_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T133047_20190130T133307_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T134714_20190130T135545_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190130T135831_20190130T142046_C001	Ocean Range Averaging Status	records.

CS_OFFL_SIR_IOPM_2_20190130T142633_20190130T142745_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T142751_20190130T143158_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T143403_20190130T144705_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T144853_20190130T145458_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T145631_20190130T150127_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T152604_20190130T155934_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T160138_20190130T160643_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T160703_20190130T161008_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T161743_20190130T164842_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T165208_20190130T165337_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T170800_20190130T171626_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T171754_20190130T172210_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T172213_20190130T173845_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T174033_20190130T174540_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T174547_20190130T174554_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T175524_20190130T180519_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T181139_20190130T182302_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T184905_20190130T190125_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T190305_20190130T191736_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T191951_20190130T192451_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T193330_20190130T193605_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T193638_20190130T195517_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T203404_20190130T205720_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T210030_20190130T210408_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T210430_20190130T210737_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T211022_20190130T213708_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T221059_20190130T223633_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T225039_20190130T230127_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T230706_20190130T232406_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190130T043237_20190130T043614_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190130T210424_20190130T210429_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T005819_20190130T010011_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T014242_20190130T014528_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T020649_20190130T020714_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T043904_20190130T043915_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T173845_20190130T173852_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

# 5.7 L2 SWH and Backscatter Measurement Check

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

Currently, there are three common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

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

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

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 81

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190129T234141_20190130T001536_C001	0 0	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T002829_20190130T003018_C001	0 0	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T010011_20190130T010218_C001	0 0	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T010418_20190130T010711_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T010910_20190130T011433_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T012024_20190130T014242_C001	0 0	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T014528_20190130T015438_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20190130T020714\_20190130T021035\_C001 CS OFFL SIR IOPM 2 20190130T022642 20190130T023243 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T023320\_20190130T024633\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T024838\_20190130T025332\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T025940\_20190130T033205\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T035428\_20190130T042109\_C001 CS OFFL SIR IOPM 2 20190130T043044 20190130T043237 C001 CS OFFL SIR IOPM 2 20190130T043915 20190130T045533 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T045536\_20190130T045700\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T050142\_20190130T050922\_C001 CS OFFL SIR IOPM 2 20190130T052442 20190130T052747 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T053016\_20190130T054541\_C001 CS OFFL SIR IOPM 2 20190130T054755 20190130T060249 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T060935\_20190130T061149\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T061230\_20190130T061649\_C001 CS OFFL SIR IOPM 2 20190130T061831 20190130T063329 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T063508\_20190130T063755\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T063758\_20190130T064936\_C001 CS OFFL SIR IOPM 2 20190130T071316 20190130T072020 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T072930\_20190130T074430\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T074725\_20190130T075553\_C001 CS OFFL SIR IOPM 2 20190130T075809 20190130T082057 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T085645\_20190130T092358\_C001 CS OFFL SIR IOPM 2 20190130T092916 20190130T093404 C001 CS OFFL SIR IOPM 2 20190130T094006 20190130T100308 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T103542\_20190130T104536\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T105114\_20190130T110143\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T110835\_20190130T111432\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T111606\_20190130T113619\_C001 CS OFFL SIR IOPM 2 20190130T113623 20190130T114502 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T120719\_20190130T124133\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T124743\_20190130T125303\_C001 CS OFFL SIR IOPM 2 20190130T125502 20190130T125817 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T125940\_20190130T130102\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T133047\_20190130T133307\_C001 CS OFFL SIR IOPM 2 20190130T133406 20190130T133448 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T134714\_20190130T135545\_C001 CS OFFL SIR IOPM 2 20190130T135831 20190130T142046 C001 CS OFFL SIR IOPM 2 20190130T142633 20190130T142745 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T142751\_20190130T143158\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T143403\_20190130T144705\_C001 CS OFFL SIR IOPM 2 20190130T144853 20190130T145458 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T145631\_20190130T150127\_C001 CS OFFL SIR IOPM 2 20190130T152604 20190130T155934 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T160138\_20190130T160643\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T160703\_20190130T161008\_C001 CS OFFL SIR IOPM 2 20190130T161743 20190130T164842 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T165208\_20190130T165337\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T170800\_20190130T171626\_C001 CS OFFL SIR IOPM 2 20190130T171754 20190130T172210 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190130T172213\_20190130T173845\_C001 SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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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Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

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

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

CS_OFFL_SIR_IOPM_2_20190130T174033_20190130T174540_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T174547_20190130T174554_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T175524_20190130T180519_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_20190130T181139_20190130T182302_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_20190130T184905_20190130T190125_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_20190130T190305_20190130T191736_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_20190130T191951_20190130T192451_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T193330_20190130T193605_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_20190130T193638_20190130T195517_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_20190130T203404_20190130T205720_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_20190130T210030_20190130T210408_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T210430_20190130T210737_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T211022_20190130T213708_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_20190130T221059_20190130T223633_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_20190130T224329_20190130T224656_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190130T225039_20190130T230127_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_20190130T230706_20190130T232406_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_20190130T210424_20190130T210429_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190130T005819_20190130T010011_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_20190130T014242_20190130T014528_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_20190130T020649_20190130T020714_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_20190130T043904_20190130T043915_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_20190130T173845_20190130T173852_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: 66

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

## 6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science	e 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:	0

#### 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-determined baseline and also to check 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 checked for the default error value (32767).

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. 30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190129T233428_20190130T002406_C001	Ocean Rande Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
		The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

CS OFFL SIR IOP 2 20190130T011342 20190130T020320 C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status, Ice	records. The Ocean and Ice Range Averaging Status Flags have been set for one
CS_OFFL_SIR_IOP_220190130T020320_20190130T025255_C001	Range Averaging Status	or more records.
CS_OFFL_SIR_IOP_220190130T025255_20190130T034233_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T034233_20190130T043209_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T043209_20190130T052147_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T052147_20190130T061122_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_220190130T061122_20190130T070101_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T070101_20190130T075036_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_220190130T075036_20190130T084014_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_220190130T084014_20190130T092949_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T092949_20190130T101928_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T101928_20190130T110903_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_220190130T110903_20190130T115841_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_220190130T115841_20190130T124817_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T124817_20190130T133755_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_220190130T133755_20190130T142730_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T142730_20190130T151708_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_220190130T151708_20190130T160643_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_220190130T160643_20190130T165622_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_220190130T165622_20190130T174557_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_220190130T174557_20190130T183535_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T183535_20190130T192511_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_220190130T192511_20190130T201449_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_20190130T201449_20190130T210424_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_220190130T210424_20190130T215403_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_220190130T215403_20190130T224338_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_220190130T224338_20190130T233316_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T233316_20190131T002251_C002	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. 30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190129T233428_20190130T002406_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_220190130T002406_20190130T011342_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_220190130T011342_20190130T020320_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_220190130T020320_20190130T025255_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_220190130T025255_20190130T034233_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_220190130T034233_20190130T043209_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_220190130T043209_20190130T052147_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_220190130T052147_20190130T061122_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_220190130T061122_20190130T070101_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_220190130T070101_20190130T075036_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.

CB, OFFL_SR_UOP_2_201901307075030_0190130708401_0001         BMH Averaging Status, Lee Bockstater Averaging Status, Ceen Bockstater Averaging Status, Ceen			
CS_DFFL_SIR_UOP_2_001001001001000000000000000000000000	CS_OFFL_SIR_IOP_220190130T075036_20190130T084014_C001		
CS. OFFL_SIR_JOP_2_20190130T10128_20190130T11928_C001       Backscatter Averaging Stutus, Ice Backscatter Averaging Stutus, Ice Backscatter Averaging Stutus       The SWH Ocean and Ice Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_JOP_2_20190130T110903_20190130T119841_C001       Backscatter Averaging Stutus, Ice Backscatter Av	CS_OFFL_SIR_IOP_220190130T084014_20190130T092949_C001		
CS_OFFL_SIR_IOP_2_20190130T101628_20190130T110803_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backsca	CS_OFFL_SIR_IOP_220190130T092949_20190130T101928_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T110903_20190130T115841_C001       Backscatter Averaging Status, Dee Backscatter Averaging Status, Dee Backsca	CS_OFFL_SIR_IOP_220190130T101928_20190130T110903_C001	Backscatter Averaging Status, Ice	
CS_OFFL_SIR_IOP_2_20190130T115841_20190130T124817_C001       Backscatter Averaging Status       Ine SWH, Ocean and ice Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T124817_20190130T133755_C001       Backscatter Averaging Status       The SWH, Ocean and ice Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T142730_20190130T151708_C001       Backscatter Averaging Status, Icea Backscatt	CS_OFFL_SIR_IOP_220190130T110903_20190130T115841_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T124817_20190130T133755_C001       Backscatter Averaging Status lease       Inflext SWH, Obean and Lee Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T142730_20190130T142730_C001       SWH Averaging Status, Ocean Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean and Lee Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T142730_20190130T151708_C001       Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean and Lee Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T151708_20190130T160643_C001       Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean and Lee Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T160643_20190130T166642_C001       Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ice Internet Ave	CS_OFFL_SIR_IOP_220190130T115841_20190130T124817_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_201801301142730_201901301142730_20011         Backscatter Averaging Status         more records.           CS_OFFL_SIR_IOP_2_201801301142730_20190130116708_C0011         Backscatter Averaging Status, Ice Backscatter Av	CS_OFFL_SIR_IOP_220190130T124817_20190130T133755_C001	Backscatter Averaging Status, Ice	
CS_OFFL_SIR_IOP_2_20190130T142730_20190130T151708_C001       Backscatter Averaging Status, lee Backsca	CS_OFFL_SIR_IOP_220190130T133755_20190130T142730_C001		
CS_OFFL_SIR_IOP_2_20190130T151708_20190130T160643_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status       Intersym. Ocdain and ice Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T160643_20190130T165622_C001       Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscat	CS_OFFL_SIR_IOP_220190130T142730_20190130T151708_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T160643_20190130T165622_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backsca	CS_OFFL_SIR_IOP_220190130T151708_20190130T160643_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T165622_20190130T174557_C001       Backscatter Averaging Status, loe Backscatter Averaging Status, loe Backsca	CS_OFFL_SIR_IOP_220190130T160643_20190130T165622_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T174557_20190130T183535_C001       Backscatter Averaging Status, loe Backsca	CS_OFFL_SIR_IOP_220190130T165622_20190130T174557_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T183535_20190130T192511_C001Backscatter Averaging Status, Ice Backscatter Averaging StatusThe SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.CS_OFFL_SIR_IOP_2_20190130T201449_20190130T210424_C001Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging StatusThe SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.CS_OFFL_SIR_IOP_2_20190130T210424_20190130T210424_C001SWH Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging StatusThe SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.CS_OFFL_SIR_IOP_2_20190130T210424_20190130T215403_C001SWH Averaging Status, Ice Backscatter Averaging Status, Ice <b< td=""><td>CS_OFFL_SIR_IOP_220190130T174557_20190130T183535_C001</td><td>Backscatter Averaging Status, Ice Backscatter Averaging Status</td><td></td></b<>	CS_OFFL_SIR_IOP_220190130T174557_20190130T183535_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T192511_20190130T201449_C001       Backscatter Averaging Status, loe Backsca	CS_OFFL_SIR_IOP_220190130T183535_20190130T192511_C001	Backscatter Averaging Status, Ice	
CS_OFFL_SIR_IOP_2_20190130T201449_20190130T210424_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_2_20190130T210424_20190130T215403_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice 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_20190130T215403_20190130T224338_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice 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_20190130T224338_20190130T224338_C001       SWH 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_20190130T224338_20190130T224338_C001       SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging Status, Ice Backscatter Averaging Status, Ocean       The SWH and Ocean Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T224338_20190130T223316_2019       SWH Averaging Status, Ocean       The SWH and Ocean Averaging Status Flags have been set for one or         CS_OFFL_SIR_IOP_2_20190130T2233316_2019       SWH Averaging Status, Ocean       The SWH and Ocean Averaging Status Flags have been set for one or	CS_OFFL_SIR_IOP_220190130T192511_20190130T201449_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T210424_20190130T215403_C001       Backscatter Averaging Status, Ice Backscatter Averaging Status       The SWH, Ucean and Ice Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T215403_20190130T224338_C001       Backscatter Averaging Status, Ice	CS_OFFL_SIR_IOP_220190130T201449_20190130T210424_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_20190130T215403_20190130T224338_C001       Backscatter Averaging Status, loe Backscatter Averaging Status, loe Backscatter Averaging Status       Interswin, Ocean and ice Averaging Status Plags have been set for one or more records.         CS_OFFL_SIR_IOP_2_20190130T224338_20190130T2233316_C001       SWH Averaging Status, Ocean Backscatter 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_20190130T224338_20190130T2233316_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_20190130T2233316_20190131T002251_C002       SWH Averaging Status, Ocean       The SWH and Ocean Averaging Status Flags have been set for one or	CS_OFFL_SIR_IOP_220190130T210424_20190130T215403_C001	Backscatter Averaging Status, Ice Backscatter Averaging Status	
CS_OFFL_SIR_IOP_2_201901301224338_201901301233316_C001 Backscatter Averaging Status more records. CS_OFFL_SIR_IOP_2_2019013012233316_20190131T002251_C002 SWH Averaging Status, Ocean The SWH and Ocean Averaging Status Flags have been set for one or	CS_OFFL_SIR_IOP_220190130T215403_20190130T224338_C001	Backscatter Averaging Status, Ice	
	CS_OFFL_SIR_IOP_220190130T224338_20190130T233316_C001		
	CS_OFFL_SIR_IOP_2_20190130T233316_20190131T002251_C002		

# 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: 28

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190130T002406_20190130T011342_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T011342_20190130T020320_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T020320_20190130T025255_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T025255_20190130T034233_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T034233_20190130T043209_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T043209_20190130T052147_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T052147_20190130T061122_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T061122_20190130T070101_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T070101_20190130T075036_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T075036_20190130T084014_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T084014_20190130T092949_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T092949_20190130T101928_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T110903_20190130T115841_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T115841_20190130T124817_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T124817_20190130T133755_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T133755_20190130T142730_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T142730_20190130T151708_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T151708_20190130T160643_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.

CS_OFFL_SIR_IOP_220190130T160643_20190130T165622_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T165622_20190130T174557_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T174557_20190130T183535_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T183535_20190130T192511_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T192511_20190130T201449_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T201449_20190130T210424_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T210424_20190130T215403_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T215403_20190130T224338_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T224338_20190130T233316_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190130T233316_20190131T002251_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.