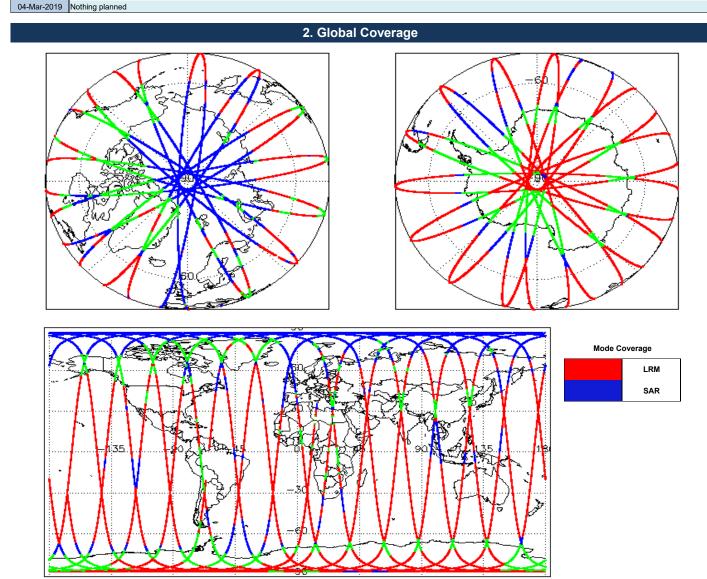


# IDEAS+ Daily Report for IOP data:

# <u>03/03/2019</u>

1. Overview					
Dement Dreductions	06 Mar 2010	Check	L1 & L2	P2P	
Report Production:	06-Mar-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal	
Due eee eeu Ueedu	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal	
Processor Used:		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	Nominal	Nominal	
1		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	

Mission / Instrument News		
02-Mar-2019	None	
03-Mar-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 Usag	e Check		
Each product is checked for missing Data Set	Descriptors with respect to a pre	e-determined baseline and also to chec	k the validity of Auxiliary Data Files is correct.
Number of products with errors:	0		
4.4 L1B Auxiliary Correction Er	ror Check		
CryoSat L1B data includes a correction error fl	ag for each measurement record	d. The bit value of this flag indicates ar	ny problems when set.
Number of products with errors:	0		
		· · · · · · · · · · · · · · · · · · ·	
4.5 L1B Measurement Confiden CryoSat L1B data includes a measurement con Attitude Correction Missing: This flag is curr Number of products with errors:	nfidence flag for each measurem	•	dicates any problems when set. s being investigated and will be updated in the next SW update.
CryoSat L1B data includes a measurement co Attitude Correction Missing: This flag is curr	nfidence flag for each measurem ently set in error for IOPR produc 0	•	
CryoSat L1B data includes a measurement con Attitude Correction Missing: This flag is curr Number of products with errors: 4.6 L1B Waveform Group Data	nfidence flag for each measurem ently set in error for IOPR produc 0 Check	cts due to a configuration issue. This i	s being investigated and will be updated in the next SW update.
CryoSat L1B data includes a measurement co Attitude Correction Missing: This flag is curr Number of products with errors: 4.6 L1B Waveform Group Data CryoSat L1B data includes a waveform data fla	nfidence flag for each measurem ently set in error for IOPR produc 0 <b>Check</b> ag for each measurement record	cts due to a configuration issue. This i	s being investigated and will be updated in the next SW update.
CryoSat L1B data includes a measurement con Attitude Correction Missing: This flag is curr Number of products with errors: 4.6 L1B Waveform Group Data CryoSat L1B data includes a waveform data fla Loss of Echo Flag: This flag is currently set for	nfidence flag for each measurem ently set in error for IOPR produc 0 <b>Check</b> ag for each measurement record	cts due to a configuration issue. This i	s being investigated and will be updated in the next SW update.
CryoSat L1B data includes a measurement con Attitude Correction Missing: This flag is curr Number of products with errors:	nfidence flag for each measurem ently set in error for IOPR produc 0 Check ag for each measurement record or products over land, but this is	cts due to a configuration issue. This i	s being investigated and will be updated in the next SW update.

CS_OFFL_SIR_IOPM1B_20190303T163241_20190303T164212_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190303T173238_20190303T173748_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190303T212952_20190303T213546_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T030520_20190303T030942_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T044417_20190303T044528_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T044657_20190303T044920_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T052608_20190303T052954_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T062615_20190303T062801_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T075715_20190303T075732_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T110411_20190303T110612_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T111604_20190303T111654_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T161038_20190303T161542_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190303T210342_20190303T210941_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190303T034307_20190303T034902_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190303T124850_20190303T125326_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190303T125709_20190303T130717_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190303T174657_20190303T175018_C001	Loss of Echo	The tracking echo is missing for one or more records

# 5. IOP Level 2 Data Quality Check

# 5.1 L2 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).
Number of products with errors: 0
5.2 L2 Product Header Analysis
For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.
Number of products with errors: 0
5.3 L2 Auxiliary Data File Usage Check
Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.
Number of products with errors: 0
5.4 L2 Auxiliary Correction Error Check
For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).
Number of products with errors: 0
5.5 L2 Measurement Confidence Data Check
CryoSat L2 data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.
Number of products with errors: 0
5.6 L2 Range Measurement Check
CryoSat L2 data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.
Currently, there are two common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.
Ocean Range Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.
Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected.

Number of products with errors: 83

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190303T000900_20190303T002849_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20190303T003015\_20190303T003525\_C001 CS OFFL SIR IOPM 2 20190303T004042 20190303T011540 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T013958\_20190303T014432\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T014515\_20190303T020250\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T020544\_20190303T020735\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T022120\_20190303T025059\_C001 CS OFFL SIR IOPM 2 20190303T031021 20190303T032848 C001 CS OFFL SIR IOPM 2 20190303T032940 20190303T034307 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T035138\_20190303T035336\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T035458\_20190303T035838\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T040017\_20190303T041558\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T041800\_20190303T042721\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T044529\_20190303T044657\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T045045\_20190303T045127\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T045517\_20190303T050640\_C001 CS OFFL SIR IOPM 2 20190303T052250 20190303T052404 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T052954\_20190303T053303\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T053931\_20190303T055501\_C001 CS OFFL SIR IOPM 2 20190303T063257 20190303T070547 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T070812\_20190303T071027\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T071037\_20190303T071633\_C001 CS OFFL SIR IOPM 2 20190303T071847 20190303T074455 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T081600\_20190303T082720\_C001 CS OFFL SIR IOPM 2 20190303T083255 20190303T084431 C001 CS OFFL SIR IOPM 2 20190303T085023 20190303T085441 C001 CS OFFL SIR IOPM 2 20190303T085734 20190303T092434 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T095031\_20190303T100633\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T100820\_20190303T102336\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T103635\_20190303T104256\_C001 CS OFFL SIR IOPM 2 20190303T111411 20190303T111525 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T112845\_20190303T120318\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T120837\_20190303T121349\_C001 CS OFFL SIR IOPM 2 20190303T121533 20190303T123529 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T130717\_20190303T134110\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T134619\_20190303T134837\_C001 CS OFFL SIR IOPM 2 20190303T134843 20190303T135255 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T135452\_20190303T142324\_C001 CS OFFL SIR IOPM 2 20190303T142347 20190303T143116 C001 CS OFFL SIR IOPM 2 20190303T143333 20190303T143514 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T144904\_20190303T145811\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T150454\_20190303T152039\_C001 CS OFFL SIR IOPM 2 20190303T152215 20190303T152735 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T152741\_20190303T152748\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T152754\_20190303T153000\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T153506\_20190303T153519\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T153850\_20190303T155110\_C001 CS OFFL SIR IOPM 2 20190303T155314 20190303T160510 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T160748\_20190303T160944\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T163241\_20190303T164212\_C001 CS OFFL SIR IOPM 2 20190303T164414 20190303T165945 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T170141\_20190303T170636\_C001

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

CS_OFFL_SIR_IOPM_2_20190303T170639_20190303T170646_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T170653_20190303T170704_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T170710_20190303T170827_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T171439_20190303T171702_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T173238_20190303T173748_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T173823_20190303T174535_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T182215_20190303T183859_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T184125_20190303T184602_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T185155_20190303T192655_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T195158_20190303T201841_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T201958_20190303T202503_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T202522_20190303T202847_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T203106_20190303T204317_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T204851_20190303T205845_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T205921_20190303T210342_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T213550_20190303T215807_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T215938_20190303T220417_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T221025_20190303T224535_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T232944_20190303T233228_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T233428_20190303T233735_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T233921_20190303T234443_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T235015_20190304T001250_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190303T053740_20190303T053925_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190303T175018_20190303T175427_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T055502_20190303T055955_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T075732_20190303T075833_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T100633_20190303T100820_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T120318_20190303T120519_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T135403_20190303T135452_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T215807_20190303T215814_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190303T233736_20190303T233755_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. 77

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190303T000900_20190303T002849_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_20190303T003015_20190303T003525_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T004042_20190303T011540_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_20190303T014515_20190303T020250_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_20190303T022120_20190303T025059_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_20190303T031021_20190303T032848_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_20190303T032940_20190303T034307_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_20190303T035458_20190303T035838_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T040017_20190303T041558_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_20190303T041800_20190303T042721_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_20190303T045045_20190303T045127_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_20190303T045517_20190303T050640_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\_20190303T052954\_20190303T053303\_C001 CS OFFL SIR IOPM 2 20190303T053305 20190303T053739 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T053931\_20190303T055501\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T063257\_20190303T070547\_C001 CS OFFL SIR IOPM 2 20190303T071037 20190303T071633 C001 CS OFFL SIR IOPM 2 20190303T071847 20190303T074455 C001 CS OFFL SIR IOPM 2 20190303T081600 20190303T082720 C001 CS OFFL SIR IOPM 2 20190303T083255 20190303T084431 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T085023\_20190303T085441\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T085734\_20190303T092434\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T095031\_20190303T100633\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T100820\_20190303T102336\_C001 CS OFFL SIR IOPM 2 20190303T103635 20190303T104256 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T111411\_20190303T111525\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T112845\_20190303T120318\_C001 CS OFFL SIR IOPM 2 20190303T120837 20190303T121349 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T121533\_20190303T123529\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T130717\_20190303T134110\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T134619\_20190303T134837\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T134843\_20190303T135255\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T135452\_20190303T142324\_C001 CS OFFL SIR IOPM 2 20190303T142347 20190303T143116 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T143333\_20190303T143514\_C001 CS OFFL SIR IOPM 2 20190303T144904 20190303T145811 C001 CS OFFL SIR IOPM 2 20190303T150454 20190303T152039 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T152215\_20190303T152735\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T152741\_20190303T152748\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T153506\_20190303T153519\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T155314\_20190303T160510\_C001 CS OFFL SIR IOPM 2 20190303T160748 20190303T160944 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T163241\_20190303T164212\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T164414\_20190303T165945\_C001 CS OFFL SIR IOPM 2 20190303T170141 20190303T170636 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T170639\_20190303T170646\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T170653\_20190303T170704\_C001 CS OFFL SIR IOPM 2 20190303T170710 20190303T170827 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T171439\_20190303T171702\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T173238\_20190303T173748\_C001 CS OFFL SIR IOPM 2 20190303T173823 20190303T174535 C001 CS OFFL SIR IOPM 2 20190303T182215 20190303T183859 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T184125\_20190303T184602\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T185155\_20190303T192655\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T195158\_20190303T201841\_C001 CS OFFL SIR IOPM 2 20190303T201958 20190303T202503 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T202522\_20190303T202847\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T203106\_20190303T204317\_C001 CS OFFL SIR IOPM 2 20190303T204851 20190303T205845 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T205921\_20190303T210342\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190303T213550\_20190303T215807\_C001 CS OFFL SIR IOPM 2 20190303T215938 20190303T220417 C001 CS OFFL SIR IOPM 2 20190303T221025 20190303T224535 C001

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

Backscatter Averaging Status

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

CS_OFFL_SIR_IOPM_2_20190303T225846_20190303T230026_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_20190303T232944_20190303T233228_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_20190303T233428_20190303T233735_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_20190303T233921_20190303T234443_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190303T235015_20190304T001250_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_20190303T053740_20190303T053925_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_20190303T175018_20190303T175427_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_20190303T055502_20190303T055955_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_20190303T075732_20190303T075833_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_20190303T100633_20190303T100820_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_20190303T120318_20190303T120519_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_20190303T135403_20190303T135452_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_20190303T215807_20190303T215814_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_20190303T233736_20190303T233755_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: 56

6. IOP L2 Pole-to-Pole Data Quality Check					
6.1 P2P Product Format Chec	:k				
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:	0				
6.2 P2P Product Header Anal	ysis				
For all products, a series of pre-defined che	cks 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 Us	sage Check				
Each product is checked for missing Data S	et 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 wi	thin the Geophysical Group are checked for the default error value (32767).				
Number of products with errors:	0				
6.5 P2P Measurement Confid	ence 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:	0				

# 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

Number of	products with	errors:

Product		

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190302T234502_20190303T003442_C002	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220190303T003442_20190303T012416_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T012416_20190303T021355_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_220190303T021355_20190303T030329_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_220190303T030329_20190303T035309_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_220190303T035309_20190303T044243_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_220190303T044243_20190303T053222_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_220190303T053222_20190303T062156_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T062156_20190303T071136_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_20190303T071136_20190303T080110_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_220190303T080110_20190303T085050_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_220190303T085050_20190303T094024_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_220190303T094024_20190303T103003_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_220190303T103003_20190303T111937_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_220190303T111937_20190303T120917_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T120917_20190303T125851_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_220190303T125851_20190303T134830_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T134830_20190303T143804_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_220190303T143804_20190303T152744_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_220190303T152744_20190303T161718_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_220190303T161718_20190303T170657_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_220190303T170657_20190303T175631_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T175631_20190303T184611_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_220190303T184611_20190303T193545_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_220190303T193545_20190303T202525_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_220190303T202525_20190303T211459_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T211459_20190303T220438_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_220190303T220438_20190303T225412_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_220190303T225412_20190303T234352_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_220190303T234352_20190304T003326_C001	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

### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190302T234502_20190303T003442_C002	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_220190303T003442_20190303T012416_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_220190303T012416_20190303T021355_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_220190303T021355_20190303T030329_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_220190303T030329_20190303T035309_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_220190303T035309_20190303T044243_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_220190303T044243_20190303T053222_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_220190303T053222_20190303T062156_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_220190303T062156_20190303T071136_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_220190303T071136_20190303T080110_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_220190303T080110_20190303T085050_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_220190303T085050_20190303T094024_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_220190303T094024_20190303T103003_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_220190303T103003_20190303T111937_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_220190303T111937_20190303T120917_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_220190303T120917_20190303T125851_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_220190303T125851_20190303T134830_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_220190303T134830_20190303T143804_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_220190303T143804_20190303T152744_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_220190303T152744_20190303T161718_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_220190303T161718_20190303T170657_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_220190303T170657_20190303T175631_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_220190303T175631_20190303T184611_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_220190303T184611_20190303T193545_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_220190303T193545_20190303T202525_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_220190303T202525_20190303T211459_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_220190303T211459_20190303T220438_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_20190303T220438_20190303T225412_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_220190303T225412_20190303T234352_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_220190303T234352_20190304T003326_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

Number of products with errors:

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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190302T234502_20190303T003442_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T003442_20190303T012416_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T012416_20190303T021355_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T021355_20190303T030329_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T030329_20190303T035309_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T035309_20190303T044243_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T044243_20190303T053222_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T062156_20190303T071136_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T071136_20190303T080110_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T080110_20190303T085050_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T085050_20190303T094024_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T094024_20190303T103003_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T103003_20190303T111937_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T111937_20190303T120917_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T120917_20190303T125851_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T125851_20190303T134830_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T134830_20190303T143804_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T143804_20190303T152744_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T152744_20190303T161718_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T161718_20190303T170657_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T170657_20190303T175631_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T175631_20190303T184611_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T184611_20190303T193545_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T202525_20190303T211459_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T211459_20190303T220438_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T220438_20190303T225412_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190303T225412_20190303T234352_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.