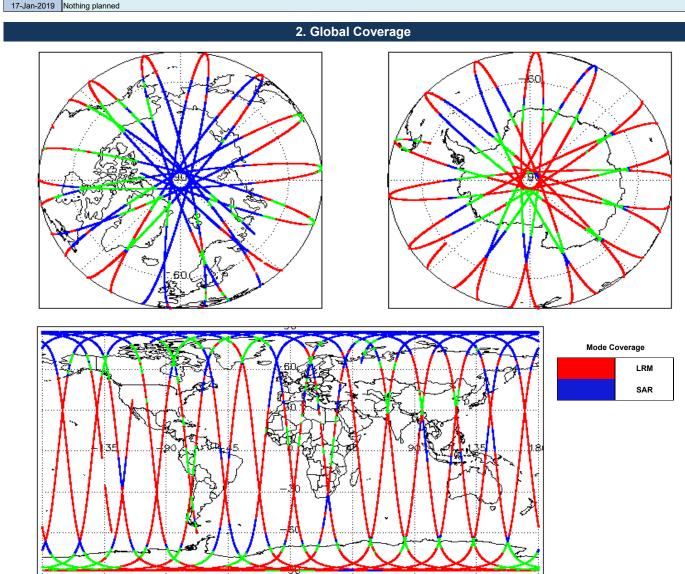


# IDEAS+ Daily Report for IOP data:

# <u>16/01/2019</u>

		1. Overview		
	04 Jan 0040	Check	L1 & L2	P2P
Report Production:	21-Jan-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CrucSat Occan Brosson	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used: Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
	Product Header Analysis	Nominal	Nominal	
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	Nominal	Nominal
		Measurement Confidence Data Check	See Section 4.5, 4.6	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			
15-Jan-2019	None		
16-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	check the validity of Auxiliary Data Files is correct.
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement reco	rd. The bit value of this flag indicat	les 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 f	lag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts due to a configuration issue.	This is being investigated and will be updated in the next SW update.
Number of products with errors: 0		
4.6 L1B Waveform Group Data Check		
ne ziz materionni oroup buta oncon		
CryoSat L1B data includes a waveform data flag for each measurement recor	d. The bit value of this flag indicate	es any problems when set.
•	-	es 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	-	es 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 Number of products with errors: 16	-	es any problems when set. Description
CryoSat L1B data includes a waveform data flag for each measurement recornoss of Echo Flag: This flag is currently set for products over land, but this is sumber of products with errors: 16 Product	s to be expected.	
CryoSat L1B data includes a waveform data flag for each measurement recornors of Echo Flag: This flag is currently set for products over land, but this is lumber of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001	to be expected.	Description
CryoSat L1B data includes a waveform data flag for each measurement recornors of Echo Flag: This flag is currently set for products over land, but this is sumber of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001 CS_OFFL_SIR_IOPM1B_20190116T105058_20190116T110241_C001	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 recor- Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001 CS_OFFL_SIR_IOPM1B_20190116T105058_20190116T110241_C001 CS_OFFL_SIR_IOPN1B_20190116T022259_20190116T022349_C001	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
CryoSat L1B data includes a waveform data flag for each measurement recornations of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001 CS_OFFL_SIR_IOPM1B_20190116T05058_20190116T102249_C001 CS_OFFL_SIR_IOPN1B_20190116T022259_20190116T022349_C001 CS_OFFL_SIR_IOPN1B_20190116T022605_20190116T022726_C001	to be expected.  Test Failed Loss of Echo 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
CryoSat L1B data includes a waveform data flag for each measurement recornoss of Echo Flag: This flag is currently set for products over land, but this is Aumber of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001 CS_OFFL_SIR_IOPM1B_20190116T105058_20190116T110241_C001 CS_OFFL_SIR_IOPN1B_20190116T022259_20190116T022349_C001 CS_OFFL_SIR_IOPN1B_20190116T022605_20190116T022726_C001 CS_OFFL_SIR_IOPN1B_20190116T071942_20190116T072050_C001	Test Failed Loss of Echo Loss of Echo 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
CryoSat L1B data includes a waveform data flag for each measurement recornors of Echo Flag: This flag is currently set for products over land, but this is sumber of products with errors:         16           Product         16           Product         16           CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001         20           CS_OFFL_SIR_IOPM1B_20190116T05058_20190116T10241_C001         20           CS_OFFL_SIR_IOPN1B_20190116T022259_20190116T022349_C001         20           CS_OFFL_SIR_IOPN1B_20190116T022605_20190116T022726_C001         20           CS_OFFL_SIR_IOPN1B_20190116T071942_20190116T072050_C001         20           CS_OFFL_SIR_IOPN1B_20190116T071942_20190116T070450_C001         20	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
CryoSat L1B data includes a waveform data flag for each measurement recornors of Echo Flag: This flag is currently set for products over land, but this is sumber of products with errors:         16           Product         16           CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001         25           CS_OFFL_SIR_IOPM1B_20190116T0558_20190116T10241_C001         25           CS_OFFL_SIR_IOPM1B_20190116T02259_20190116T022349_C001         25           CS_OFFL_SIR_IOPN1B_20190116T022605_20190116T022726_C001         25           CS_OFFL_SIR_IOPN1B_20190116T071942_20190116T072050_C001         25           CS_OFFL_SIR_IOPN1B_20190116T085857_20190116T090450_C001         25           CS_OFFL_SIR_IOPN1B_20190116T034808_20190116T134911_C001         25	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           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:         16           Product         16           CS_OFFL_SIR_IOPM1B_20190116T075709_20190116T080145_C001         17           CS_OFFL_SIR_IOPM1B_20190116T105058_20190116T10241_C001         16           CS_OFFL_SIR_IOPN1B_20190116T02259_20190116T022349_C001         16           CS_OFFL_SIR_IOPN1B_20190116T022605_20190116T022726_C001         16           CS_OFFL_SIR_IOPN1B_20190116T071942_20190116T072050_C001         17           CS_OFFL_SIR_IOPN1B_20190116T035857_20190116T039450_C001         16           CS_OFFL_SIR_IOPN1B_20190116T134808_20190116T134911_C001         16           CS_OFFL_SIR_IOPN1B_20190116T134808_20190116T1349242_C001         17	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           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 recor Loss of Echo Flag: This flag is currently set for products over land, but this is	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           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

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. 76

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190115T235843_20190116T000925_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T001501_20190116T003250_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

# 5. IOP Level 2 Data Quality Check

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

#### 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

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:

Loss of Echo

#### 5.3 L2 Auxiliary Data File Usage Check

CS\_OFFL\_SIR\_IOPR1B\_20190116T103011\_20190116T103224\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190116T120806\_20190116T121012\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190116T133852\_20190116T134003\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190116T184558\_20190116T184844\_C001

CS\_OFFL\_SIR\_IOPR1B\_20190116T220823\_20190116T221700\_C001

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:

#### 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:

5.6	L2	Range	Measurement	Check
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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.

CS\_OFFL\_SIR\_IOPM\_2\_20190116T004522\_20190116T004615\_C001 CS OFFL SIR IOPM 2 20190116T012123 20190116T012410 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T012612\_20190116T013143\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T013742\_20190116T021108\_C001 CS OFFL SIR IOPM 2 20190116T022448 20190116T022604 C001 CS OFFL SIR IOPM 2 20190116T024408 20190116T030325 C001 CS OFFL SIR IOPM 2 20190116T031627 20190116T035022 C001 CS OFFL SIR IOPM 2 20190116T041520 20190116T041957 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T042036\_20190116T043813\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T044747\_20190116T044943\_C001 CS OFFL SIR IOPM 2 20190116T045634 20190116T051122 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T051125\_20190116T051405\_C001 CS OFFL SIR IOPM 2 20190116T051846 20190116T052541 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T054555\_20190116T060320\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T060501\_20190116T061910\_C001 CS OFFL SIR IOPM 2 20190116T062650 20190116T062853 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T062953\_20190116T063355\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T063543\_20190116T065112\_C001 CS OFFL SIR IOPM 2 20190116T065313 20190116T070237 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T073103\_20190116T074201\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T074744\_20190116T075525\_C001 CS OFFL SIR IOPM 2 20190116T075709 20190116T080145 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T080451\_20190116T081257\_C001 CS OFFL SIR IOPM 2 20190116T081518 20190116T083034 C001 CS OFFL SIR IOPM 2 20190116T090710 20190116T094100 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T094333\_20190116T094538\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T094611\_20190116T095139\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T095418\_20190116T101928\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T105058\_20190116T110241\_C001 CS OFFL SIR IOPM 2 20190116T110819 20190116T111858 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T112253\_20190116T112355\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T112541\_20190116T113029\_C001 CS OFFL SIR IOPM 2 20190116T113036 20190116T113140 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T113318\_20190116T120106\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T122511\_20190116T125823\_C001 CS OFFL SIR IOPM 2 20190116T130449 20190116T131019 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T131216\_20190116T131808\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T134912\_20190116T135115\_C001 CS OFFL SIR IOPM 2 20190116T140439 20190116T143806 C001 CS OFFL SIR IOPM 2 20190116T144351 20190116T144905 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T145112\_20190116T151046\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T154243\_20190116T161613\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T161929\_20190116T162351\_C001 CS OFFL SIR IOPM 2 20190116T162410 20190116T162804 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T163156\_20190116T170627\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T170751\_20190116T171039\_C001 CS OFFL SIR IOPM 2 20190116T172613 20190116T173331 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T173812\_20190116T175549\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T175732\_20190116T180249\_C001 CS OFFL SIR IOPM 2 20190116T181319 20190116T182629 C001 CS OFFL SIR IOPM 2 20190116T182843 20190116T184055 C001

Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status 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 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 Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status

records

The Ocean Range Averaging Status Flag has been set for one or more reco 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 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 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 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 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 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 Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more 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 record 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_20190116T184401_20190116T184447_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T190807_20190116T191831_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T192011_20190116T193433_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T193658_20190116T194200_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T194207_20190116T194218_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T195753_20190116T200243_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T200908_20190116T201221_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T201344_20190116T202055_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T205233_20190116T211401_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T212734_20190116T215613_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T222812_20190116T225329_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T225505_20190116T230030_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T230728_20190116T231832_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T232410_20190116T234003_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190116T113029_20190116T113036_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190116T122110_20190116T122510_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190116T170741_20190116T170751_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T004357_20190116T004521_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T040034_20190116T041520_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T051405_20190116T051846_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T140359_20190116T140438_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T154120_20190116T154243_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190116T170628_20190116T170646_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. 74

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190115T235843_20190116T000925_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_20190116T001501_20190116T003250_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_20190116T004522_20190116T004615_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_20190116T012123_20190116T012410_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_20190116T012612_20190116T013143_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T013742_20190116T021108_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_20190116T022448_20190116T022604_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_20190116T024408_20190116T030325_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_20190116T030531_20190116T031039_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T031627_20190116T035022_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_20190116T041520_20190116T041957_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_20190116T042036_20190116T043813_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_20190116T045634_20190116T051122_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_20190116T051125_20190116T051405_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_20190116T051846_20190116T052541_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_20190116T054555_20190116T060320_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_20190116T060501_20190116T061910_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_20190116T062650_20190116T062853_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T062953_20190116T063355_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190116T063543_20190116T065112_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\_20190116T065313\_20190116T070237\_C001 CS OFFL SIR IOPM 2 20190116T073103 20190116T074201 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T074744\_20190116T075525\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T075709\_20190116T080145\_C001 CS OFFL SIR IOPM 2 20190116T080451 20190116T081257 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T081518\_20190116T083034\_C001 CS OFFL SIR IOPM 2 20190116T090710 20190116T094100 C001 CS OFFL SIR IOPM 2 20190116T094333 20190116T094538 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T094611\_20190116T095139\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T095418\_20190116T101928\_C001 CS OFFL SIR IOPM 2 20190116T105058 20190116T110241 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T110819\_20190116T111858\_C001 CS OFFL SIR IOPM 2 20190116T112253 20190116T112355 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T112541\_20190116T113029\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T113036\_20190116T113140\_C001 CS OFFL SIR IOPM 2 20190116T113318 20190116T120106 C001 CS OFFL SIR IOPM 2 20190116T122511 20190116T125823 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T130449\_20190116T131019\_C001 CS OFFL SIR IOPM 2 20190116T131216 20190116T131808 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T134912\_20190116T135115\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T140439\_20190116T143806\_C001 CS OFFL SIR IOPM 2 20190116T144351 20190116T144905 C001 CS OFFL SIR IOPM 2 20190116T145112 20190116T151046 C001 CS OFFL SIR IOPM 2 20190116T154243 20190116T161613 C001 CS OFFL SIR IOPM 2 20190116T161929 20190116T162351 C001 CS OFFL SIR IOPM 2 20190116T162410 20190116T162804 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T163156\_20190116T170627\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T172613\_20190116T173331\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T173812\_20190116T175549\_C001 CS OFFL SIR IOPM 2 20190116T175732 20190116T180249 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T181319\_20190116T182629\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T182843\_20190116T184055\_C001 CS OFFL SIR IOPM\_2\_20190116T184401\_20190116T184447\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T190807\_20190116T191831\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T192011\_20190116T193433\_C001 CS OFFL SIR IOPM 2 20190116T193658 20190116T194200 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T195753\_20190116T200243\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T200908\_20190116T201221\_C001 CS OFFL SIR IOPM 2 20190116T201344 20190116T202055 C001 CS OFFL SIR IOPM 2 20190116T205233 20190116T211401 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T212734\_20190116T215613\_C001 CS OFFL SIR IOPM 2 20190116T222812 20190116T225329 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T225505\_20190116T230030\_C001 CS OFFL SIR IOPM 2 20190116T230728 20190116T231832 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190116T232410\_20190116T234003\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20190116T113029\_20190116T113036\_C001 CS OFFL SIR IOPN 2 20190116T122110 20190116T122510 C001 CS\_OFFL\_SIR\_IOPN\_2\_20190116T170741\_20190116T170751\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20190116T004357\_20190116T004521\_C001 CS OFFL SIR IOPR 2 20190116T040034 20190116T041520 C001 CS\_OFFL\_SIR\_IOPR\_2\_20190116T051405\_20190116T051846\_C001

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 SWH Averaging Status, Ocean Backscatter Averaging Status Ice 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 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 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 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

Ice Backscatter Averaging Status SWH Averaging Status, Ocean

Backscatter 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

The 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_IOPR_2_20190116T140359_201901	16T140438_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_20190116T154120_201901	16T154243_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_20190116T170628_201901	16T170646_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 Ch	eck		
CryoSat L2 data includes an ocean retracking quality	flag for each 20-Hz mea	surement record. The bit value of this flag i	ndicates any problems when set.
Cean Retracking Quality Flag: This flag is currentl	y set for products over la	nd 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:	53		
	6. IOP L	2 Pole-to-Pole Data Qual	ity Check
6.1 P2P Product Format Check			
Each product, retrieved and unpacked from the scien	ce server, is checked to e	ensure it consists of both an XML header fil	le (.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 p	erformed on the MPH and	d SPH in order to identify any inconsistenci	es and/or errors raised by the ground-segment processing chain.
Number of products with errors:	0		
6.3 P2P Auxiliary Data File Usage C	heck		
Each product is checked for missing Data Set Descrip	otors with respect to a pre	e-determined baseline and also to check th	e validity of Auxiliary Data Files is correct.
Number of products with errors:	0		
6.4 P2P Auxiliary Correction Error C	heck		
For all products, the auxiliary corrections within the G	eophysical Group are ch	ecked for the default error value (32767).	
Number of products with errors:	0		
6.5 P2P Measurement Confidence D	ata Check		
CryoSat P2P data includes a measurement confidence	ce flag for each 20-Hz me	easurement record. The bit value of this flag	g 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	of this flag indicates any problems when set.
Currently, there are two common status flags rais nighlighting any additional issues which may aris		which are expected due to surface type	. All common flags are summarised in the list below, followed by a table
Ocean Range Averaging Status Flag: This flag is c	urrently set for products of	over land and sea ice, but this is to be expe	cted.
ce Range Averaging Status Flag: This flag is curre	ntly set for products over	land, but this is to be expected.	
Number of products with errors:	29		

Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20190115T235133_20190116T004113_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T004113_20190116T013047_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190116T013047_20190116T022026_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T022026_20190116T031000_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_220190116T031000_20190116T035940_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T035940_20190116T044914_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_220190116T044914_20190116T053853_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_220190116T053853_20190116T062827_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190116T062827_20190116T071807_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_20190116T071807_20190116T080741_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T080741_20190116T085721_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_220190116T085721_20190116T094655_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_20190116T094655_20190116T103634_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_220190116T103634_20190116T112608_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190116T112608_20190116T121548_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_220190116T121548_20190116T130522_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_20190116T130522_20190116T135501_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_220190116T135501_20190116T144435_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_20190116T144435_20190116T153415_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T153415_20190116T162349_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_220190116T162349_20190116T171328_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_220190116T171328_20190116T180302_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_220190116T180302_20190116T185242_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_220190116T185242_20190116T194216_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_220190116T194216_20190116T203156_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_220190116T203156_20190116T212130_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_220190116T212130_20190116T221109_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T221109_20190116T230043_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_220190116T230043_20190116T235023_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.

#### 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.

Number of products with errors: 29

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190115T235133_20190116T004113_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_220190116T004113_20190116T013047_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_220190116T013047_20190116T022026_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_220190116T022026_20190116T031000_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_220190116T031000_20190116T035940_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_220190116T035940_20190116T044914_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_220190116T044914_20190116T053853_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_220190116T053853_20190116T062827_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_220190116T062827_20190116T071807_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_220190116T071807_20190116T080741_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_220190116T080741_20190116T085721_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_220190116T085721_20190116T094655_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_220190116T094655_20190116T103634_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_220190116T103634_20190116T112608_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_220190116T112608_20190116T121548_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_220190116T121548_20190116T130522_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_220190116T130522_20190116T135501_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_220190116T135501_20190116T144435_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_220190116T144435_20190116T153415_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_220190116T153415_20190116T162349_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_220190116T162349_20190116T171328_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_220190116T171328_20190116T180302_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_220190116T180302_20190116T185242_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_220190116T185242_20190116T194216_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_220190116T194216_20190116T203156_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.

		The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
	00	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220190116T221109_20190116T230043_C001	Backscatter Averaging Status Ice	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220190116T230043_20190116T235023_C001	Backscatter Averaging Status Ice	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

# 6.8 P2P Ocean Retracking Quality Check

Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below. Number of products with errors: 28

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190116T004113_20190116T013047_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T013047_20190116T022026_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T022026_20190116T031000_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T031000_20190116T035940_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T035940_20190116T044914_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T044914_20190116T053853_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T053853_20190116T062827_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T062827_20190116T071807_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T071807_20190116T080741_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T085721_20190116T094655_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T094655_20190116T103634_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T103634_20190116T112608_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T112608_20190116T121548_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T121548_20190116T130522_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T130522_20190116T135501_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T135501_20190116T144435_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T144435_20190116T153415_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T153415_20190116T162349_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T162349_20190116T171328_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T171328_20190116T180302_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T180302_20190116T185242_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T185242_20190116T194216_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T194216_20190116T203156_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T203156_20190116T212130_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T212130_20190116T221109_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T221109_20190116T230043_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T230043_20190116T235023_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190116T235023_20190117T003957_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.