

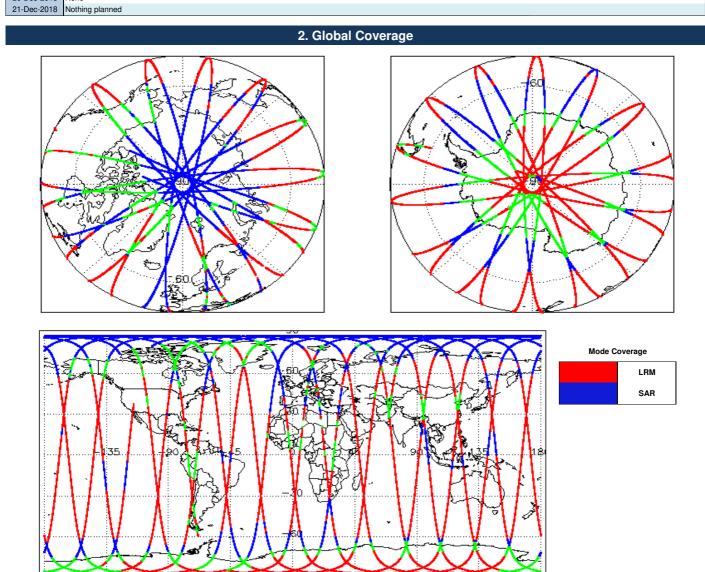
# IDEAS+ Daily Report for IOP data:

# <u>20/12/2018</u>



1. Overview				
Papart Draduation	. 07-Jan-2019	Check	L1 & L2	P2P
Report Production: 07-Jan-2019		Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Description of the second seco		Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Usada	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Used:	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
	<u>.</u>	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
		<u> </u>		
Mission / Instrument N	lews			
19-Dec-2018 None				

20-Dec-2018 None



# 3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

0

4. IOP Level 1B Data Quality Check

# 4.1 L1B Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

## 4.2 L1B Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.
Number of products with errors:
0

4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pro-	e-determined baseline and also to	check the validity of Auxiliary Data Files is correct.
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement recom	d. The bit value of this flag indicate	es 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 measurem	nent record. The bit value of this fl	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. T	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		
CryoSat L1B data includes a waveform data flag for each measurement record	-	es any problems when set.
Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set.
Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set.
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product	to be expected.	Description
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_20181220T022006_20181220T022142_C001	to be expected. Test Failed Loss of Echo	Description           The tracking echo is missing for one or more records
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_20181220T022006_20181220T022142_C001	to be expected.	Description
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_20181220T022006_20181220T022142_C001 CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001	to be expected. Test Failed Loss of Echo	Description           The tracking echo is missing for one or more records
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_20181220T022006_20181220T022142_C001         CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_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
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_20181220T022006_20181220T022142_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         16	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
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_20181220T022006_20181220T022142_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T0203045_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T0203045_20181220T08050_C001         16	to be expected.  Test Failed Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
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_20181220T022006_20181220T022142_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         16           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T020609_20181220T020630_C001         16           CS_OFFL_SIR_IOPN1B_20181220T020609_20181220T020630_C001         16           CS_OFFL_SIR_IOPN1B_20181220T034533_20181220T034617_C001         16	Test Failed         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
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_20181220T022006_20181220T022142_C001         16           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001         16           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T030455_20181220T082510_C001         16           CS_OFFL_SIR_IOPM1B_20181220T020609_20181220T020630_C001         16           CS_OFFL_SIR_IOPN1B_20181220T034533_20181220T034617_C001         16           CS_OFFL_SIR_IOPN1B_20181220T070644_20181220T070816_C001         16	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
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_20181220T022006_20181220T022142_C001         CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001           CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001         CS_OFFL_SIR_IOPM1B_20181220T03045_20181220T082510_C001           CS_OFFL_SIR_IOPM1B_20181220T020609_20181220T020630_C001         CS_OFFL_SIR_IOPN1B_20181220T034533_20181220T034617_C001           CS_OFFL_SIR_IOPN1B_20181220T070644_20181220T070816_C001         CS_OFFL_SIR_IOPN1B_20181220T076642_20181220T070816_C001	to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           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
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product	Test Failed Loss of Echo Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           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
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_20181220T022006_20181220T022142_C001         CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T081346_C001           CS_OFFL_SIR_IOPM1B_20181220T075826_20181220T082510_C001         CS_OFFL_SIR_IOPM1B_20181220T081547_20181220T082510_C001           CS_OFFL_SIR_IOPM1B_20181220T0203045_20181220T08050_C001         CS_OFFL_SIR_IOPM1B_20181220T020609_20181220T020630_C001           CS_OFFL_SIR_IOPN1B_20181220T034533_20181220T034617_C001         CS_OFFL_SIR_IOPN1B_20181220T070644_20181220T070816_C001           CS_OFFL_SIR_IOPN1B_20181220T075632_20181220T075809_C001         CS_OFFL_SIR_IOPN1B_20181220T033416_20181220T0344409_C001	Test Failed         Loss of Echo         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records

# 5. 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

Loss of Echo

Loss of Echo

Loss of Echo

Loss of Echo

## 5.1 L2 Product Format Check

CS\_OFFL\_SIR\_IOPR1B\_20181220T151438\_20181220T152239\_C001

CS\_OFFL\_SIR\_IOPR1B\_20181220T192939\_20181220T193550\_C001

CS\_OFFL\_SIR\_IOPR1B\_20181220T215211\_20181220T215901\_C001

CS\_OFFL\_SIR\_IOPR1B\_20181220T233646\_20181220T233948\_C001

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:

#### 5.3 L2 Auxiliary Data File Usage Check

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

## 5.4 L2 Auxiliary Correction Error Check

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

Number of products with errors:

# 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

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. 72

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20181220T003918_20181220T010613_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T010853_20181220T011349_C001	lice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20181220T012202\_20181220T013201\_C001 CS OFFL SIB IOPM 2 20181220T013736 20181220T015528 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T020754\_20181220T020956\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T022006\_20181220T022142\_C001 CS OFFL SIR IOPM 2 20181220T024040 20181220T024201 C001 CS OFFL SIR IOPM 2 20181220T024401 20181220T024419 C001 CS OFFL SIR IOPM 2 20181220T024851 20181220T025420 C001 CS OFFL SIR IOPM 2 20181220T030100 20181220T033416 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T040641\_20181220T042319\_C001 CS OFFL SIR IOPM 2 20181220T042809 20181220T043317 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T043937\_20181220T051318\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T053811\_20181220T054241\_C001 CS OFFL SIR IOPM 2 20181220T054313 20181220T060052 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T061026\_20181220T061220\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T061933\_20181220T063640\_C001 CS OFFL SIR IOPM 2 20181220T064121 20181220T065012 C001 CS OFFL SIR IOPM 2 20181220T070827 20181220T072552 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T072739\_20181220T074153\_C001 CS OFFL SIB IOPM 2 20181220T074927 20181220T075131 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T075229\_20181220T075632\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T075826\_20181220T081346\_C001 CS OFFL SIR IOPM 2 20181220T081547 20181220T082510 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T084325\_20181220T084421\_C001 CS OFFL SIR IOPM 2 20181220T085219 20181220T090438 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T091016\_20181220T091827\_C001 CS OFFL SIR IOPM 2 20181220T091927 20181220T092349 C001 CS OFFL SIR IOPM\_2\_20181220T092727\_20181220T093534\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T093813\_20181220T095324\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T103623\_20181220T110303\_C001 CS OFFL SIR IOPM 2 20181220T110611 20181220T110815 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T110850\_20181220T111413\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T111724\_20181220T114202\_C001 CS OFFL SIR IOPM 2 20181220T121419 20181220T122519 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T123057\_20181220T124058\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T124818\_20181220T125419\_C001 CS OFFL SIR IOPM 2 20181220T125637 20181220T132402 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T133211\_20181220T133414\_C001 CS OFFL SIR IOPM 2 20181220T134741 20181220T142017 C001 CS OFFL SIR IOPM 2 20181220T142727 20181220T143255 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T143612\_20181220T144044\_C001 CS OFFL SIR IOPM 2 20181220T151142 20181220T151438 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T152651\_20181220T153710\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T153815\_20181220T160013\_C001 CS OFFL SIR IOPM 2 20181220T160734 20181220T161142 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T161625\_20181220T163319\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T170509\_20181220T173843\_C001 CS OFFL SIR IOPM 2 20181220T174201 20181220T174628 C001 CS OFFL SIR IOPM 2 20181220T175729 20181220T182903 C001 CS OFFL SIR IOPM 2 20181220T183022 20181220T183314 C001 CS OFFL SIR IOPM 2 20181220T184528 20181220T185608 C001 CS OFFL SIR IOPM 2 20181220T190211 20181220T191815 C001

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

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 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 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 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 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 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 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 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 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 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 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

CS_OFFL_SIR_IOPM_2_20181220T192010_20181220T192527_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T193550_20181220T194904_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T195118_20181220T200448_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T203045_20181220T204109_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T204249_20181220T205656_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T205936_20181220T210438_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T210502_20181220T210616_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T211956_20181220T212522_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T213619_20181220T214322_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T221510_20181220T223543_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T223958_20181220T224354_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T224415_20181220T224636_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T225030_20181220T231847_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20181220T065719_20181220T065722_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20181220T102131_20181220T102722_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20181220T174013_20181220T174201_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20181220T115522_20181220T115623_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20181220T133414_20181220T134346_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20181220T150108_20181220T150243_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. 70

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20181220T003918_20181220T010613_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_20181220T010853_20181220T011349_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T011357_20181220T011725_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T012202_20181220T013201_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_20181220T013736_20181220T015528_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_20181220T020754_20181220T020956_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_20181220T022006_20181220T022142_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_20181220T024040_20181220T024201_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_20181220T024851_20181220T025420_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T030100_20181220T033416_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_20181220T040641_20181220T042319_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_20181220T042809_20181220T043317_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T043937_20181220T051318_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_20181220T053811_20181220T054241_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_20181220T054313_20181220T060052_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_20181220T061026_20181220T061220_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T061933_20181220T063640_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_20181220T064121_20181220T065012_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_20181220T070827_20181220T072552_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_20181220T072739_20181220T074153_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_20181220T074927_20181220T075131_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20181220T075826_20181220T081346_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_20181220T081547_20181220T082510_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_20181220T084325_20181220T084421_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20181220T085219\_20181220T090438\_C001 CS OFFL SIB IOPM 2 20181220T091016 20181220T091827 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T091927\_20181220T092349\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T092727\_20181220T093534\_C001 CS OFFL SIR IOPM 2 20181220T093813 20181220T095324 C001 CS OFFL SIR IOPM 2 20181220T103623 20181220T110303 C001 CS OFFL SIR IOPM 2 20181220T110611 20181220T110815 C001 CS OFFL SIR IOPM 2 20181220T110850 20181220T111413 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T111724\_20181220T114202\_C001 CS OFFL SIR IOPM 2 20181220T121419 20181220T122519 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T123057\_20181220T124058\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T124818\_20181220T125419\_C001 CS OFFL SIR IOPM 2 20181220T125637 20181220T132402 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T133211\_20181220T133414\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T134741\_20181220T142017\_C001 CS OFFL SIR IOPM 2 20181220T142727 20181220T143255 C001 CS OFFL SIR IOPM 2 20181220T143612 20181220T144044 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T151142\_20181220T151438\_C001 CS\_OFFL\_SIB\_IOPM\_2\_20181220T152651\_20181220T153710\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T153815\_20181220T160013\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T160734\_20181220T161142\_C001 CS OFFL SIR IOPM 2 20181220T161625 20181220T163319 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T170509\_20181220T173843\_C001 CS OFFL SIR IOPM 2 20181220T174201 20181220T174628 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T174647\_20181220T175040\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T175729\_20181220T182903\_C001 CS OFFL SIR IOPM\_2\_20181220T183022\_20181220T183314\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T184528\_20181220T185608\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T190211\_20181220T191815\_C001 CS OFFL SIR IOPM 2 20181220T192010 20181220T192527 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T193550\_20181220T194904\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T195118\_20181220T200448\_C001 CS OFFL SIR IOPM 2 20181220T200556 20181220T200737 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T204249\_20181220T205656\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T205936\_20181220T210438\_C001 CS OFFL SIR IOPM 2 20181220T210502 20181220T210616 C001 CS OFFL SIR IOPM 2 20181220T211956 20181220T212522 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T213619\_20181220T214322\_C001 CS OFFL SIR IOPM 2 20181220T221510 20181220T223543 C001 CS\_OFFL\_SIR\_IOPM\_2\_20181220T223958\_20181220T224354\_C001 CS OFFL SIR IOPM 2 20181220T225030 20181220T231847 C001 CS\_OFFL\_SIR\_IOPN\_2\_20181220T065719\_20181220T065722\_C001 CS\_OFFL\_SIR\_IOPN\_2\_20181220T174013\_20181220T174201\_C001 CS OFFL SIR IOPR 2 20181220T115522 20181220T115623 C001 CS\_OFFL\_SIR\_IOPR\_2\_20181220T133414\_20181220T134346\_C001 CS\_OFFL\_SIR\_IOPR\_2\_20181220T150108\_20181220T150243\_C001

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

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

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

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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

SWH Averaging Status, Ocean Backscatter Averaging Status

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

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

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

records.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### 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.

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

#### 6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).

# Number of products with errors:

#### 6.2 P2P Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 0

## 6.3 P2P Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct. 0

Number of products with errors:

## 6.4 P2P Auxiliary Correction Error Check

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

0

Number of products with errors:

## 6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set. 0

Number of products with errors:

#### 6.6 P2P Range Measurement Check

CryoSat P2P data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags raised in the P2P products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

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

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 28

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181220T002432_20181220T011409_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_220181220T011409_20181220T020346_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_20181220T020346_20181220T025322_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T025322_20181220T034259_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T034259_20181220T043236_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_220181220T043236_20181220T052213_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_220181220T052213_20181220T061149_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_220181220T061149_20181220T070126_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T070126_20181220T075103_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_220181220T075103_20181220T084040_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_220181220T084040_20181220T093016_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T093016_20181220T101953_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_220181220T101953_20181220T110930_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T110930_20181220T115907_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_220181220T115907_20181220T124844_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T124844_20181220T133821_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_220181220T133821_20181220T142757_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T142757_20181220T151734_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_20181220T151734_20181220T160711_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T160711_20181220T165648_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_220181220T165648_20181220T174624_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_220181220T174624_20181220T183601_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_220181220T183601_20181220T192538_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_220181220T192538_20181220T201515_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_220181220T201515_20181220T210451_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_220181220T210451_20181220T215428_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T215428_20181220T224405_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_20181220T224405_20181220T233342_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.

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181220T002432_20181220T011409_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_220181220T011409_20181220T020346_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_220181220T020346_20181220T025322_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_20181220T025322_20181220T034259_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T034259_20181220T043236_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_20181220T043236_20181220T052213_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T052213_20181220T061149_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T061149_20181220T070126_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T070126_20181220T075103_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_20181220T075103_20181220T084040_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_2_20181220T084040_20181220T093016_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T093016_20181220T101953_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_2_20181220T101953_20181220T110930_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T110930_20181220T115907_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T115907_20181220T124844_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_220181220T124844_20181220T133821_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T133821_20181220T142757_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_220181220T142757_20181220T151734_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T151734_20181220T160711_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T160711_20181220T165648_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T165648_20181220T174624_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T174624_20181220T183601_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T183601_20181220T192538_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_2_20181220T192538_20181220T201515_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_2_20181220T201515_20181220T210451_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_2_20181220T210451_20181220T215428_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_220181220T215428_20181220T224405_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.
CS_OFFL_SIR_IOP_220181220T224405_20181220T233342_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for on or more records.

# 6.8 P2P Ocean Retracking Quality Check

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

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

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220181220T002432_20181220T011409_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T011409_20181220T020346_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T020346_20181220T025322_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T025322_20181220T034259_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T034259_20181220T043236_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T043236_20181220T052213_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T052213_20181220T061149_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T061149_20181220T070126_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T070126_20181220T075103_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T075103_20181220T084040_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T084040_20181220T093016_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T101953_20181220T110930_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T110930_20181220T115907_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T115907_20181220T124844_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T124844_20181220T133821_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T133821_20181220T142757_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T142757_20181220T151734_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T151734_20181220T160711_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T160711_20181220T165648_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T165648_20181220T174624_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20181220T174624_20181220T183601_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T183601_20181220T192538_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T192538_20181220T201515_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T201515_20181220T210451_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T210451_20181220T215428_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T215428_20181220T224405_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220181220T224405_20181220T233342_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.