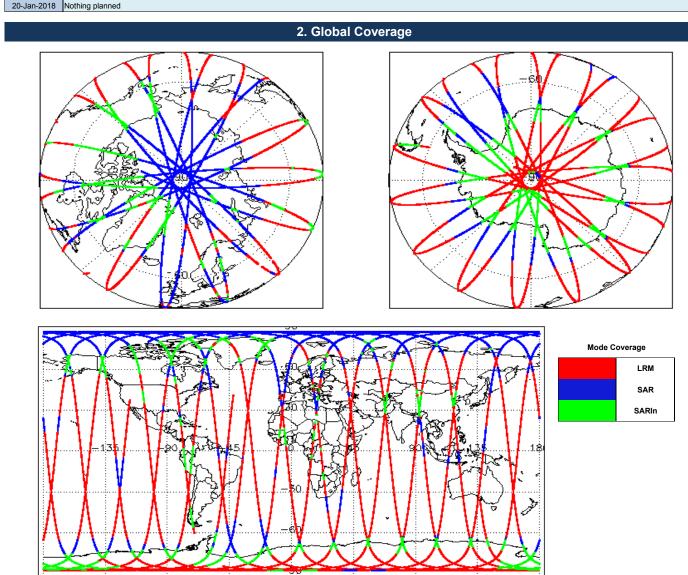


# IDEAS+ Daily Report for GOP data:

# <u>19/01/2018</u>

Report Production:	19-Feb-2018	Check	L1 & L2	P2P
		Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	Jsed: CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor useu.		Product Software Check	Nominal	Nominal
Data Used:	Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data	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 and 5.5	See Section 6.5
		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

Wission / Instru		ment wews
	18-Jan-2018	None
19-Jan-2018		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. GOP 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

### 4.4 L1B Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag for each measurement record. The bit value of this flag indicates 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 measurement record. The bit value of this flag indicates any problems when set.

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20180119T160625_20180119T160954_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_GOPM1B_20180119T212924_20180119T213111_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

### 4.6 L1B Waveform Group Data Check

CryoSat L1B data includes a waveform data flag for each measurement record. The bit value of this flag indicates any problems when set.

Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.

2

13

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20180119T200421_20180119T202021_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T030635_20180119T031145_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T093743_20180119T094022_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T125318_20180119T125414_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T125621_20180119T125837_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T135933_20180119T140320_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T174814_20180119T175229_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T220640_20180119T221153_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T225740_20180119T230133_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20180119T235051_20180119T235216_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20180119T044019_20180119T044129_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20180119T121445_20180119T122039_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20180119T233423_20180119T234118_C001	Loss of Echo	The tracking echo is missing for one or more records

# 5. GOP Level 2 Data Quality Check

## 5.1 L2 Product Format Check

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

Number of products with errors:

### 5.2 L2 Product Header Analysis

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

#### 5.3 L2 Auxiliary Data File Usage Check

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

#### 5.4 L2 Auxiliary Correction Error Check

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

2

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:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20180119T160625_20180119T160954_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOPM_2_20180119T212924_20180119T213110_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

### 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.

Product CS\_OFFL\_SIR\_GOPM\_2\_20180118T235349\_20180119T001035\_C001 CS OFFL SIR GOPM 2 20180119T001243 20180119T002714 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T003430\_20180119T003637\_C001 CS OFFL SIR GOPM 2 20180119T003728 20180119T004139 C001 CS OFFL SIR GOPM 2 20180119T004325 20180119T005850 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T010051\_20180119T011012\_C001 CS OFFL SIR GOPM 2 20180119T013837 20180119T014942 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T015500\_20180119T020930\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T021225\_20180119T022041\_C001 CS OFFL SIR GOPM 2 20180119T022257 20180119T023922 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T024208\_20180119T024419\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T032137\_20180119T034848\_C001 CS OFFL SIR GOPM 2 20180119T035118 20180119T035318 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T035400\_20180119T035908\_C001 CS OFFL SIR GOPM 2 20180119T040157 20180119T042712 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T045902\_20180119T051024\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T051603\_20180119T052638\_C001 CS OFFL SIR GOPM 2 20180119T053324 20180119T053926 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T054056\_20180119T060946\_C001 CS OFFL SIR GOPM 2 20180119T061723 20180119T061908 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T063229\_20180119T070614\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T071233\_20180119T071757\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T071957\_20180119T072549\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T075611\_20180119T075933\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T081209\_20180119T082033\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T082319\_20180119T084536\_C001 CS OFFL SIR GOPM 2 20180119T085130 20180119T085236 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T085240\_20180119T085648\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T085850\_20180119T091822\_C001 CS OFFL SIR GOPM 2 20180119T095047 20180119T102414 C001 CS OFFL SIR GOPM 2 20180119T103140 20180119T103146 C001 CS OFFL SIR GOPM 2 20180119T103937 20180119T103948 C001 CS OFFL SIR GOPM 2 20180119T104233 20180119T111359 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T113414\_20180119T114112\_C001 CS OFFL SIR GOPM 2 20180119T114554 20180119T120327 C001 CS OFFL SIR GOPM 2 20180119T120517 20180119T121031 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T122039\_20180119T123410\_C001 CS OFFL SIR GOPM 2 20180119T123624 20180119T124814 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T131551\_20180119T132444\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T132753\_20180119T134222\_C001 CS OFFL SIR GOPM 2 20180119T134441 20180119T134942 C001 CS OFFL SIR GOPM 2 20180119T134949 20180119T135000 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T135816\_20180119T135932\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T140320\_20180119T141105\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T141513\_20180119T142001\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T145851\_20180119T152150\_C001 CS OFFL SIR GOPM 2 20180119T152513 20180119T152859 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T152921\_20180119T153207\_C001 CS OFFL SIR GOPM 2 20180119T153514 20180119T160355 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T163544\_20180119T170118\_C001 CS OFFL SIR GOPM 2 20180119T170255 20180119T170813 C001

Test Failed 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 Ocean 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 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 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 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 Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status

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

CS_OFFL_SIR_GOPM_2_20180119T171518_20180119T172613_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T173151_20180119T174813_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T181235_20180119T183042_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T18445_20180119T183042_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T184255_20180119T184045_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T184255_20180119T185049_C001Ice Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T192745_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T200421_20180119T1020201_C001Ocean Range Averaging StatusThe Ocean Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T202226_20180119T202739_C001Ice Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T203323_0180119T205549_C001Ocean Range Averaging StatusThe Ice Range Averaging Status Flag has been set for one of records.CS_OFFL_SIR_GOPM_2_20180119T203323_0180119T205549_C001Ocean Range Averaging StatusThe Ice Range Averaging Status Flag has been set	more more more re more
CS_OFFL_SIR_GOPM_2_201801191173151_201801191174815_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_GOPM_2_201801191183045_201801191183042_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191183445_201801191183045_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191184255_201801191185049_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191185437_201801191192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191185437_201801191192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191200421_201801191202021_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191200226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191202226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191203232_201801191202233_201801191202233_201801191202332_201801191202332_2018011912	more more re more
CS_OFFL_SIR_GOPM_2_201801191183445_201801191183042_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_GOPM_2_201801191183445_201801191184045_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191184255_201801191185049_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191185437_201801191192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191185437_201801191192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191200421_201801191202021_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191200226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191202226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191202233_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191202332_201801191202332_201801191202332_201801191202332_201801191203333_20180119120333	more re more
CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T185049_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T200421_20180119T202021_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T202226_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T202226_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T202233_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_20180119T203323_20180119T205549_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or m records.	re more
CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T192745_C001       Ice Range Averaging Status       records.         CS_OFFL_SIR_GOPM_2_20180119T185437_20180119T192745_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_20180119T200421_20180119T202021_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_20180119T202226_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_20180119T202226_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_20180119T202323_20180119T202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPM_2_201801191200421_20180119120221_C001       Ocean Range Averaging Status       records.         CS_OFFL_SIR_GOPM_2_201801191200421_20180119120221_C001       Ocean Range Averaging Status       The Ocean Range Averaging Status Flag has been set for one or records.         CS_OFFL_SIR_GOPM_2_201801191202226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.         CS_OFFL_SIR_GOPM_2_201801191202226_201801191202739_C001       Ice Range Averaging Status       The Ice Range Averaging Status Flag has been set for one or m records.	
CS_OFFL_SIR_GOPM_2_201801191200421_201801191202021_C001 CS_OFFL_SIR_GOPM_2_201801191202226_2018011912020739_C001 Ice Range Averaging Status CS_OFFL_SIR_GOPM_2_201801191202226_2018011912020739_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202323_201801191205549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801191202332_201801191202332_201801191202549_C001 CS_OFFL_SIR_GOPM_2_2018019191202332_20180119120232_201801191202549_C001 CS_OFFL_SIR_GOPM_2_201801919120232_20180119120232_2018019191202549_C001 CS_OFFL_SIR_GOPM_2_201801919120232_201801919120223 CS_OFFL_SIR_GOPM_2_201801919120232_201801919120201019119120202101919119120223 CS_OFFL_SIR_GOPM_2_2018019191202032_201801919119120202101919119191191202021019191919	more
CS_OFFL_SIR_GOPM_2_201801191202225_201801191202739_C001 Ice Range Averaging Status records. CS_OFFL_SIR_GOPM_2_201801191202225_201801191202739_C001 Ccean Page Averaging Status Flag has been set for one c	
	e
	more
CS_OFFL_SIR_GOPM_2_20180119T205834_20180119T210804_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPM_2_20180119T211933_20180119T212013_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPM_2_20180119T213835_20180119T214444_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one of records.	more
CS_OFFL_SIR_GOPM_2_20180119T214632_20180119T215759_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one of records.	more
CS_OFFL_SIR_GOPM_2_20180119T221320_20180119T224553_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPM_2_20180119T230223_20180119T232148_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPM_2_20180119T232151_20180119T233423_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one of records.	more
CS_OFFL_SIR_GOPM_2_20180119T234743_20180119T235051_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or m records.	e
CS_OFFL_SIR_GOPM_2_20180119T235216_20180120T000811_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPN_2_20180119T012915_20180119T013008_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPN_2_20180119T053128_20180119T053324_C001 Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or m records.	e
CS_OFFL_SIR_GOPN_2_20180119T103527_20180119T103654_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPR_2_20180119T120328_20180119T120340_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or records.	more
CS_OFFL_SIR_GOPR_2_20180119T193830_20180119T194133_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been set for one or 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. 75

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20180118T235349_20180119T001035_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_GOPM_2_20180119T001243_20180119T002714_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_GOPM_2_20180119T003430_20180119T003637_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T003728_20180119T004139_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T004325_20180119T005850_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_GOPM_2_20180119T010051_20180119T011012_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_GOPM_2_20180119T013837_20180119T014942_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_GOPM_2_20180119T015500_20180119T020930_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_GOPM_2_20180119T021225_20180119T022041_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T022257_20180119T023922_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_GOPM_2_20180119T024208_20180119T024419_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_GOPM_2_20180119T032137_20180119T034848_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_GOPM_2_20180119T035118_20180119T035318_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T035400_20180119T035908_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T040157_20180119T042712_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_GOPM_2_20180119T045902_20180119T051024_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_GOPM_2_20180119T051603_20180119T052638_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_GOPM_2_20180119T053324_20180119T053926_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180119T054056_20180119T060946_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\_GOPM\_2\_20180119T061723\_20180119T061908\_C001 CS OFFL SIR GOPM 2 20180119T063229 20180119T070614 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T071233\_20180119T071757\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T071957\_20180119T072549\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T075611\_20180119T075933\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T081209\_20180119T082033\_C001 CS OFFL SIR GOPM 2 20180119T082319 20180119T084536 C001 CS OFFL SIR GOPM 2 20180119T085130 20180119T085236 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T085240\_20180119T085648\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T085850\_20180119T091822\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T095047\_20180119T102414\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T103140\_20180119T103146\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T103154\_20180119T103527\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T103937\_20180119T103948\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T104233\_20180119T111359\_C001 CS OFFL SIR GOPM 2 20180119T111551 20180119T111819 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T113414\_20180119T114112\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T114554\_20180119T120327\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T120517\_20180119T121031\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T122039\_20180119T123410\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T123624\_20180119T124814\_C001 CS OFFL SIR GOPM 2 20180119T132753 20180119T134222 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T134441\_20180119T134942\_C001 CS OFFL SIR GOPM 2 20180119T134949 20180119T135000 C001 CS OFFL SIR GOPM 2 20180119T135816 20180119T135932 C001 CS OFFL SIR GOPM 2 20180119T140320 20180119T141105 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T141513\_20180119T142001\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T145851\_20180119T152150\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T152513\_20180119T152859\_C001 CS OFFL SIR GOPM 2 20180119T152921 20180119T153207 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T153514\_20180119T160355\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T163544\_20180119T170118\_C001 CS OFFL SIR GOPM 2 20180119T170255 20180119T170813 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T170819\_20180119T171145\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T171518\_20180119T172613\_C001 CS OFFL SIR GOPM 2 20180119T173151 20180119T174813 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T181235\_20180119T183042\_C001 CS OFFL SIR GOPM 2 20180119T183445 20180119T184045 C001 CS OFFL SIR GOPM 2 20180119T184255 20180119T185049 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T185437\_20180119T192745\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T200421\_20180119T202021\_C001 CS OFFL SIR GOPM 2 20180119T202226 20180119T202739 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T203323\_20180119T205549\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T205834\_20180119T210804\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T213835\_20180119T214444\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T214632\_20180119T215759\_C001 CS OFFL SIR GOPM 2 20180119T221320 20180119T224553 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T230223\_20180119T232148\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T232151\_20180119T233423\_C001 CS OFFL SIR GOPM 2 20180119T234743 20180119T235051 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180119T235216\_20180120T000811\_C001 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 SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

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

Backscatter Averaging Status Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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

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

Ice Backscatter Averaging Status

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

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

Ice Backscatter Averaging Status

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The 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.

CS_OFFL_SIR_GOPN_2_20180119T012915_20180119T013008_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_GOPN_2_20180119T053128_20180119T053324_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.				
CS_OFFL_SIR_GOPN_2_20180119T103527_20180119T103654_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_GOPR_2_20180119T120328_20180119T120340_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_GOPR_2_20180119T193830_20180119T194133_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.				
5.8 L2 Ocean Retracking Quality Check						
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz meas	surement record. The bit value of this flag inc	dicates any problems when set.				
Ocean Retracking Quality Flag: This flag is currently set for products over lar	nd and sea ice, but this is to be expected. Th	ne number of products with this error flag set is given below.				
Number of products with errors: 61						
6. GOP L	2 Pole-to-Pole Data Quali	ity 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: 0						
6.2 P2P Product Header Analysis						
For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.						
Number of products with errors: 0						
6.3 P2P Auxiliary Data File Usage Check						
Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.						
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.						
6.4 P2P Auxiliary Correction Error Check						
For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).						
Number of products with errors: 0						
6.5 P2P Measurement Confidence Data Check						
CryoSat P2P data includes a measurement confidence flag for each 20-Hz me	asurement record. The bit value of this flag	indicates any problems when set.				
Number of products with errors: 2						
Product	Test Failed	Description				
CS_OFFL_SIR_GOP_220180119T152914_20180119T161849_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records				
CS_OFFL_SIR_GOP_220180119T211630_20180119T220609_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records				
6.6 P2P Range Measurement Check						

## 6.6 P2P Range Measurement Check

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

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

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

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 30

# Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180118T234633_20180119T003612_C002	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T003612_20180119T012547_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_GOP_220180119T012547_20180119T021526_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_GOP_220180119T021526_20180119T030500_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_GOP_220180119T030500_20180119T035439_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T035439_20180119T044414_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_GOP_220180119T044414_20180119T053353_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T053353_20180119T062327_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_GOP_220180119T062327_20180119T071307_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T071307_20180119T080241_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_GOP_220180119T080241_20180119T085220_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T085220_20180119T094155_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_GOP_220180119T094155_20180119T103134_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_GOP_220180119T103134_20180119T112108_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_GOP_220180119T112108_20180119T121047_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_GOP_220180119T121047_20180119T130022_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T130022_20180119T135001_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.

		The Ocean Deeper Augustice Otatus Flag has been estificated and an
CS_OFFL_SIR_GOP_220180119T135001_20180119T143935_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20180119T143935_20180119T152914_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_GOP_220180119T152914_20180119T161849_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_GOP_2_20180119T161849_20180119T170828_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_GOP_2_20180119T170828_20180119T175802_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_GOP_2_20180119T175802_20180119T184742_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_GOP_2_20180119T184742_20180119T193716_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20180119T193716_20180119T202655_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_GOP_2_20180119T202655_20180119T211630_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20180119T211630_20180119T220609_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_GOP_2_20180119T220609_20180119T225543_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20180119T225543_20180119T234522_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T234522_20180120T003457_C002	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

### 6.7 P2P SWH and Backscatter Measurement Check

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

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

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

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

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 30

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180118T234633_20180119T003612_C002	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_GOP_220180119T003612_20180119T012547_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_GOP_220180119T012547_20180119T021526_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_GOP_220180119T021526_20180119T030500_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_GOP_220180119T030500_20180119T035439_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_GOP_220180119T035439_20180119T044414_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_GOP_220180119T044414_20180119T053353_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_GOP_220180119T053353_20180119T062327_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_GOP_220180119T062327_20180119T071307_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_GOP_220180119T071307_20180119T080241_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_GOP_220180119T080241_20180119T085220_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_GOP_220180119T085220_20180119T094155_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_GOP_220180119T094155_20180119T103134_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_GOP_220180119T103134_20180119T112108_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_GOP_220180119T112108_20180119T121047_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_GOP_220180119T121047_20180119T130022_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_GOP_220180119T130022_20180119T135001_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_GOP_220180119T135001_20180119T143935_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_GOP_220180119T143935_20180119T152914_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_GOP_220180119T152914_20180119T161849_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_GOP_220180119T161849_20180119T170828_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_GOP_220180119T170828_20180119T175802_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_GOP_220180119T175802_20180119T184742_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_GOP_220180119T184742_20180119T193716_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_GOP_220180119T193716_20180119T202655_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_GOP_220180119T202655_20180119T211630_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_GOP_220180119T211630_20180119T220609_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_GOP_220180119T220609_20180119T225543_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_GOP_220180119T225543_20180119T234522_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_GOP_220180119T234522_20180120T003457_C002	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

## 6.8 P2P Ocean Retracking Quality Check

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below. Number of products with errors: 27

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180118T234633_20180119T003612_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T003612_20180119T012547_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T012547_20180119T021526_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T021526_20180119T030500_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T030500_20180119T035439_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T035439_20180119T044414_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T044414_20180119T053353_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T053353_20180119T062327_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T062327_20180119T071307_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T071307_20180119T080241_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T080241_20180119T085220_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T085220_20180119T094155_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T094155_20180119T103134_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T103134_20180119T112108_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T112108_20180119T121047_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T121047_20180119T130022_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T130022_20180119T135001_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T135001_20180119T143935_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T152914_20180119T161849_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T161849_20180119T170828_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T170828_20180119T175802_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T175802_20180119T184742_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T184742_20180119T193716_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T193716_20180119T202655_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T202655_20180119T211630_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T220609_20180119T225543_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180119T225543_20180119T234522_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
	1	