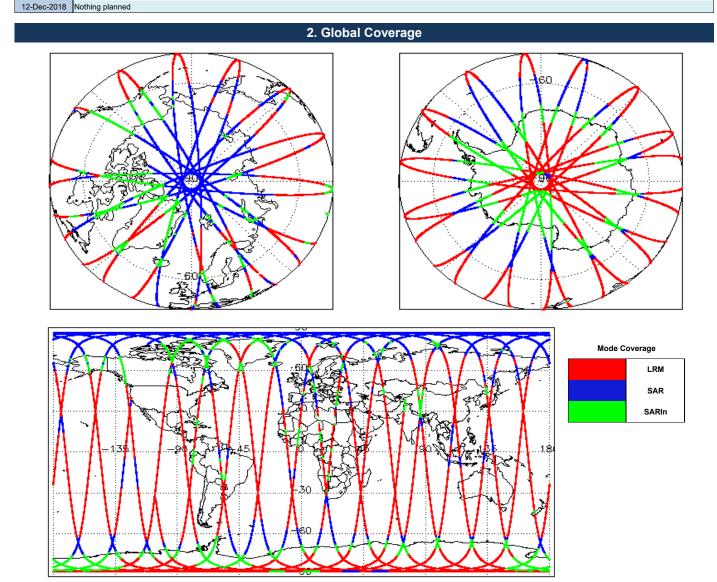


# IDEAS+ Daily Report for GOP data:

# <u>11/12/2018</u>

,		1. Overview		
Report Production:	15-Jan-2019	Check	L1 & L2	P2P
oport i roduction.		Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Durana and Hands	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:		Product Software Check	Nominal	Nominal
Dete Heads	Geophysical Ocean Products (GOP) L1B, L2 & P2P Science Data	Product Format Check	Nominal	Nominal
Data Used:		Product Header Analysis	See Section 5.2	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	Nominal	Nominal
		Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
		Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7
		Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

Mission / Instrument News					
10-Dec-2018	None				
11-Dec-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

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 recor	d. The bit value of this flag indicat	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 measurer	ment record. The bit value of this f	ag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for GOPR proc	ducts due to a configuration issue.	This is being investigated and will be updated in the next SW update.
Number of products with errors: 0		
A 6 L 4 B Wayeform Crown Data Chack		
4.6 L1B Waveform Group Data Check		
CryoSat L1B data includes a waveform data flag for each measurement record	d. The bit value of this flag indicate	s any problems when set.
Loss of Echo Flag: This flag is currently set for some products over land, but	this is to be expected.	
Number of products with errors: 21		
	Test Failed	Description
Product	Test Failed Loss of Echo	Description The tracking echo is missing for one or more records
Product CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001		•
Product CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001 CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001	Loss of Echo	The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T034358_20181211T0849488_C001	Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T084358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T12054358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T112215_20181211T112704_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T084358_20181211T034948_C001   CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T12704_C001   CS_OFFL_SIR_GOPN1B_20181211T1125423_20181211T125507_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T20408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T084358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T12215_20181211T1084948_C001   CS_OFFL_SIR_GOPN1B_20181211T112215_20181211T112704_C001   CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T125507_C001   CS_OFFL_SIR_GOPN1B_20181211T160918_20181211T161046_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T034358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T12215_20181211T1084948_C001   CS_OFFL_SIR_GOPN1B_20181211T112215_20181211T112704_C001   CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T125507_C001   CS_OFFL_SIR_GOPN1B_20181211T160918_20181211T161046_C001   CS_OFFL_SIR_GOPN1B_20181211T170233_20181211T170644_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Number of products with errors: 21   Product CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001 CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T20408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001 CS_OFFL_SIR_GOPN1B_20181211T1084358_20181211T1084948_C001   CS_OFFL_SIR_GOPN1B_20181211T1252_0181211T112704_C001 CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T125507_C001   CS_OFFL_SIR_GOPN1B_20181211T160918_20181211T161046_C001 CS_OFFL_SIR_GOPN1B_20181211T170233_20181211T170644_C001   CS_OFFL_SIR_GOPN1B_20181211T175152_20181211T170552_C001 CS_OFFL_SIR_GOPN1B_20181211T173154_20181211T193449_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T084358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T12215_20181211T102704_C001   CS_OFFL_SIR_GOPN1B_20181211T1225423_20181211T12704_C001   CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T125507_C001   CS_OFFL_SIR_GOPN1B_20181211T160918_20181211T16046_C001   CS_OFFL_SIR_GOPN1B_20181211T170233_20181211T170644_C001   CS_OFFL_SIR_GOPN1B_20181211T175152_20181211T175552_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
Product   CS_OFFL_SIR_GOPM1B_20181211T200325_20181211T201841_C001   CS_OFFL_SIR_GOPM1B_20181211T205155_20181211T210408_C001   CS_OFFL_SIR_GOPN1B_20181211T031747_20181211T031952_C001   CS_OFFL_SIR_GOPN1B_20181211T084358_20181211T084948_C001   CS_OFFL_SIR_GOPN1B_20181211T12215_20181211T112704_C001   CS_OFFL_SIR_GOPN1B_20181211T125423_20181211T1125507_C001   CS_OFFL_SIR_GOPN1B_20181211T160918_20181211T161046_C001   CS_OFFL_SIR_GOPN1B_20181211T170233_20181211T170644_C001   CS_OFFL_SIR_GOPN1B_20181211T17552_20181211T175552_C001   CS_OFFL_SIR_GOPN1B_20181211T193354_20181211T193449_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records 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

#### Level 2 Data Quality Check **5. GOP**

Loss of Echo

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

#### 5.1 L2 Product Format Check

CS\_OFFL\_SIR\_GOPR1B\_20181211T044440\_20181211T044618\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T091345\_20181211T091524\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T120316\_20181211T120527\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T121630\_20181211T121757\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T134114\_20181211T134500\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T152111\_20181211T152448\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T210408\_20181211T210756\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T225227\_20181211T225745\_C001

CS\_OFFL\_SIR\_GOPR1B\_20181211T233655\_20181211T233822\_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: 3

Product	Test Failed
CS_OFFL_SIR_GOPR_2_20181211T075625_20181211T075632_C001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OFFL_SIR_GOPR_2_20181211T075635_20181211T075641_C001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OFFL_SIR_GOPR_2_20181211T144550_20181211T144558_C001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.

#### 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). 0

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.

#### 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.

an 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. 83

Number of products with errors:

Produc Test Fai Description The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T000226 20181211T002749 C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T003005\_20181211T003524\_C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T003531 20181211T003855 C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T004229 20181211T005323 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T005858 20181211T011401 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T013952 20181211T020636 C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T020950\_20181211T021425\_C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T021428\_20181211T021801\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T022245\_20181211T025538\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T033936\_20181211T034452\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T034930\_20181211T035451\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T040124 20181211T042258 C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T042544\_20181211T043526\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T044655\_20181211T045114\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T050707 20181211T051154 C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T051341\_20181211T052406\_C001 Ocean Range Averaging Status ecords The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T053009\_20181211T053350\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T054038 20181211T054550 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T054600\_20181211T061246\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T063014\_20181211T070129\_C001 Ocean Range Averaging Status ecords The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T071103 20181211T071256 C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T071550\_20181211T071729\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T071949 20181211T073716 C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T074156\_20181211T074856\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T081024\_20181211T082601\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T083221 20181211T084357 C001 Ocean Range Averaging Status ecords The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T084949\_20181211T085210\_C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T085242\_20181211T085704\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T085918 20181211T091345 C001 Ocean Range Averaging Status ecords. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T091524\_20181211T093021\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T095218\_20181211T095928\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T100050\_20181211T100349\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T100351\_20181211T100539\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T100836\_20181211T102431\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T102735 20181211T103613 C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T103839\_20181211T110106\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T112938\_20181211T120316\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T120651\_20181211T120839\_C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T120938\_20181211T121410\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T121757 20181211T124242 C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T131502\_20181211T132556\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T133134\_20181211T134114\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR GOPM 2 20181211T134620 20181211T134623 C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T134855\_20181211T135446\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_GOPM\_2\_20181211T135718\_20181211T141857\_C001 Ocean Range Averaging Status

records

		The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_GOPM_2_20181211T141902_20181211T142340_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_GOPM_2_20181211T143344_20181211T143445_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_GOPM_2_20181211T144717_20181211T152111_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T152801_20181211T153317_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T153740_20181211T153758_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T153957_20181211T154209_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T161046_20181211T161322_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T162653_20181211T163604_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T163850_20181211T170031_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T171709_20181211T172721_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T172909_20181211T173617_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T173701_20181211T174142_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T180624_20181211T183937_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T184145_20181211T184701_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T185800_20181211T192814_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T192958_20181211T193316_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T193316_20181211T193354_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T194808_20181211T200121_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T200325_20181211T201841_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T202056_20181211T202558_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T202605_20181211T202612_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T202618_20181211T202629_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T203521_20181211T204536_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T205155_20181211T210408_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T213902_20181211T214145_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T214325_20181211T215741_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T220009_20181211T220509_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T221200_20181211T224523_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T231454_20181211T233654_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T234054_20181211T234425_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T234447_20181211T234813_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T235110_20181212T001946_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20181211T003512_20181211T003514_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20181211T071729_20181211T071920_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20181211T061848_20181211T062337_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20181211T080220_20181211T080334_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20181211T085843_20181211T085918_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20181211T170031_20181211T170233_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. 78

Product	Test Failed	Description
		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T003005_20181211T003524_C001		The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T003531_20181211T003855_C001	Lice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
	00	The SWH and Ocean Averaging Status Flags have been set for one or more records.
	00	The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS\_OFFL\_SIR\_GOPM\_2\_20181211T013952\_20181211T020636\_C001 CS OFFL SIR GOPM 2 20181211T020950 20181211T021425 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T022245\_20181211T025538\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T033936\_20181211T034452\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T034930\_20181211T035451\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T040124\_20181211T042258\_C001 CS OFFL SIR GOPM 2 20181211T042544 20181211T043526 C001 CS OFFL SIR GOPM 2 20181211T044655 20181211T045114 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T050707\_20181211T051154\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T051341\_20181211T052406\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T054038\_20181211T054550\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T054600\_20181211T061246\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T063014\_20181211T070129\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T071103\_20181211T071256\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T071949\_20181211T073716\_C001 CS OFFL SIR GOPM 2 20181211T074156 20181211T074856 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T080455\_20181211T080858\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T081024\_20181211T082601\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T083221\_20181211T084357\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T084949\_20181211T085210\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T085242\_20181211T085704\_C001 CS OFFL SIR GOPM 2 20181211T085918 20181211T091345 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T091524\_20181211T093021\_C001 CS OFFL SIR GOPM 2 20181211T095218 20181211T095928 C001 CS OFFL SIR GOPM 2 20181211T100050 20181211T100349 C001 CS OFFL SIR GOPM 2 20181211T100351 20181211T100539 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T100836\_20181211T102431\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T102735\_20181211T103613\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T103839\_20181211T110106\_C001 CS OFFL SIR GOPM 2 20181211T112938 20181211T120316 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T120651\_20181211T120839\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T120938\_20181211T121410\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T121757\_20181211T124242\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T131502\_20181211T132556\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T133134\_20181211T134114\_C001 CS OFFL SIR GOPM 2 20181211T134855 20181211T135446 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T135718\_20181211T141857\_C001 CS OFFL SIR GOPM 2 20181211T143344 20181211T143445 C001 CS OFFL SIR GOPM 2 20181211T144717 20181211T152111 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T152801\_20181211T153317\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T153740\_20181211T153758\_C001 CS OFFL SIR GOPM 2 20181211T161046 20181211T161322 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T162653\_20181211T163604\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T163850\_20181211T170031\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T171709\_20181211T172721\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T172909\_20181211T173617\_C001 CS OFFL SIR GOPM 2 20181211T173701 20181211T174142 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T180624\_20181211T183937\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T184145\_20181211T184701\_C001 CS OFFL SIR GOPM 2 20181211T185800 20181211T192814 C001 CS\_OFFL\_SIR\_GOPM\_2\_20181211T192958\_20181211T193316\_C001 SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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

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

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

The 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.

CS_OFFL_SIR_GOPM_2_20181211T193316_20181211T193354_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T194808_20181211T200121_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_20181211T200325_20181211T201841_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_20181211T202056_20181211T202558_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T202605_20181211T202612_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T202618_20181211T202629_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T203521_20181211T204536_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_20181211T205155_20181211T210408_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_20181211T213902_20181211T214145_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_20181211T214325_20181211T215741_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_20181211T220009_20181211T220509_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T221200_20181211T224523_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_20181211T231454_20181211T233654_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_20181211T234054_20181211T234425_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T234447_20181211T234813_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20181211T235110_20181212T001946_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_20181211T003512_20181211T003514_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20181211T071729_20181211T071920_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_20181211T061848_20181211T062337_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_20181211T080220_20181211T080334_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_20181211T085843_20181211T085918_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_20181211T170031_20181211T170233_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		

### 5.8 L2 Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below. Number of products with errors: 59

### 6. GOP 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:

#### 6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

#### 6.4 P2P Auxiliary Correction Error Check

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

# 6.5 P2P Measurement Confidence Data Check

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

Number of products with errors:

#### 6.6 P2P Range Measurement Check

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

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

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

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

Product	Test Failed	Description
CS OFFL SIR GOP 2 20181210T234554 20181211T003532 C002		The Ocean and Ice Range Averaging Status Flags have been set for one
00_011E_011C_001_2201012101234334_201012111003332_0002	Range Averaging Status	or more records.
CS OFFL SIR GOP 2 20181211T003532 20181211T012507 C001	Ocean Range Averaging Status, Ice	The Ocean and Ice Range Averaging Status Flags have been set for one
C3_0FFL_SIK_GOF_Z_201812111003532_201812111012507_C001	Range Averaging Status	or more records.
CS_OFFL_SIR_GOP_220181211T012507_20181211T021445_C001	0 0 0	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_GOP_220181211T021445_20181211T030421_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_220181211T030421_20181211T035359_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_220181211T035359_20181211T044334_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_220181211T044334_20181211T053312_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T053312_20181211T062248_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T062248_20181211T071226_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_220181211T071226_20181211T080201_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_220181211T080201_20181211T085139_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T085139_20181211T094115_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_220181211T094115_20181211T103053_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T103053_20181211T112029_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_220181211T112029_20181211T121007_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_220181211T121007_20181211T125942_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_220181211T125942_20181211T134920_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_220181211T134920_20181211T143856_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_220181211T143856_20181211T152834_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T152834_20181211T161809_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_220181211T161809_20181211T170747_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T170747_20181211T175723_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_220181211T175723_20181211T184701_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_220181211T184701_20181211T193636_C002	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220181211T193636_20181211T202614_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_220181211T202614_20181211T211550_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T211550_20181211T220528_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_220181211T220528_20181211T225503_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_220181211T225503_20181211T234441_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_220181211T234441_20181212T003417_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

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220181210T234554_20181211T003532_C002	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220181211T003532_20181211T012507_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_2_20181211T012507_20181211T021445_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_2_20181211T021445_20181211T030421_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_2_20181211T030421_20181211T035359_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_2_20181211T035359_20181211T044334_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_2_20181211T044334_20181211T053312_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_2_20181211T053312_20181211T062248_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_2_20181211T062248_20181211T071226_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_2_20181211T071226_20181211T080201_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_2_20181211T080201_20181211T085139_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_220181211T085139_20181211T094115_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_2_20181211T094115_20181211T103053_C001	SWH Averaging Status Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220181211T103053_20181211T112029_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_2_20181211T112029_20181211T121007_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_2_20181211T121007_20181211T125942_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_220181211T125942_20181211T134920_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_220181211T134920_20181211T143856_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_220181211T143856_20181211T152834_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_2_20181211T152834_20181211T161809_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_220181211T161809_20181211T170747_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_2_20181211T170747_20181211T175723_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_220181211T175723_20181211T184701_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_220181211T184701_20181211T193636_C002	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220181211T193636_20181211T202614_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_2_20181211T202614_20181211T211550_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_220181211T211550_20181211T220528_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_2_20181211T220528_20181211T225503_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_220181211T225503_20181211T234441_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_2_20181211T234441_20181212T003417_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: 29

Test Failed	Description
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
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Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
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Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
	Ocean Retracking Quality Flag Ocean Retracking Quality Flag

CS_OFFL_SIR_GOP_220181211T161809_20181211T170747_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T170747_20181211T175723_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T175723_20181211T184701_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T184701_20181211T193636_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T193636_20181211T202614_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T202614_20181211T211550_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T211550_20181211T220528_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T220528_20181211T225503_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T225503_20181211T234441_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220181211T234441_20181212T003417_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.