

# IDEAS+ Daily Report for GOP data:

# 03/06/2018



CRYDSAT	<u> </u>		<u></u>	
		1. Overview		
	04 1-1-0040	Check	L1 & L2	P2P
eport Production:	04-Jul-2018	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
	On a Oat Oas an Drassan	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
rocessor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
	Geophysical Ocean Products (GOP)	Product Format Check	Nominal	Nominal
Data Used:	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	Nominal	Nominal
		Measurement Confidence Data Check	See Section 4.6	Nominal
		Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.
		Ocean Retracking Quality Check	See Section 5.8	See Section 6.8
ssion / Instrument Ner 2-Jun-2018 None 3-Jun-2018 None 4-Jun-2018 Nothing p				
		2. Global Coverage		
	129			Mode Coverage LRM SAR SARIn

# 3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

0

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 pre	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	tes 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	lag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for GOPR prod	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		
4.6 L1B Waveform Group Data Check		
Loss of Echo Flag: This flag is currently set for some products over land, but	-	es any problems when set.
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for some products over land, but Number of products with errors: 15 Product	-	es any problems when set.  Description
Loss of Echo Flag: This flag is currently set for some products over land, but Number of products with errors: 15 Product CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001	this is to be expected.	
Loss of Echo Flag: This flag is currently set for some products over land, but Number of products with errors: 15 Product CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001 CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001	this is to be expected.           Test Failed           Loss of Echo           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but Number of products with errors: 15 Product CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001 CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001 CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001	this is to be expected.           Test Failed           Loss of Echo           Loss of Echo           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T105447_20180603T105942_C001	this is to be expected.           Test Failed           Loss of Echo           Loss of Echo           Loss of Echo           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T074913_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T105447_20180603T072942_C001           CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001         CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001	this is to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but Number of products with errors: 15 Product CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001 CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001 CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001 CS_OFFL_SIR_GOPN1B_20180603T105447_20180603T105942_C001 CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001 CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001	this is to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001           CS_OFFL_SIR_GOPN1B_20180603T105447_20180603T105942_C001         CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001           CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001         CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001	this is to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001           CS_OFFL_SIR_GOPN1B_20180603T1255757_20180603T125940_C001         CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001           CS_OFFL_SIR_GOPN1B_20180603T005944_20180603T010251_C001         CS_OFFL_SIR_GOPR1B_20180603T005944_20180603T0123920_C001	this is to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T05557_20180603T05942_C001           CS_OFFL_SIR_GOPN1B_20180603T1255757_20180603T125940_C001         CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001           CS_OFFL_SIR_GOPN1B_20180603T05944_20180603T01251_C001         CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T023920_C001           CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T023920_C001         CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T055828_C001	this is to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T105447_20180603T072710_C001           CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001         CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001           CS_OFFL_SIR_GOPN1B_20180603T05944_20180603T010251_C001         CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T023920_C001           CS_OFFL_SIR_GOPR1B_20180603T025611_20180603T055828_C001         CS_OFFL_SIR_GOPR1B_20180603T055611_20180603T060334_C001	Test Failed         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001           CS_OFFL_SIR_GOPN1B_20180603T105447_20180603T105942_C001         CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001           CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001         CS_OFFL_SIR_GOPN1B_20180603T05944_20180603T010251_C001           CS_OFFL_SIR_GOPN1B_20180603T05944_20180603T023920_C001         CS_OFFL_SIR_GOPR1B_20180603T055611_20180603T055828_C001           CS_OFFL_SIR_GOPR1B_20180603T06006_20180603T060334_C001         CS_OFFL_SIR_GOPR1B_20180603T06006_20180603T06334_C001           CS_OFFL_SIR_GOPR1B_20180603T060036_20180603T093148_C001         CS_OFFL_SIR_GOPR1B_20180603T06268_20180603T093148_C001	this is to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records
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Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T105447_20180603T105942_C001           CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001         CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T192519_C001           CS_OFFL_SIR_GOPN1B_20180603T023607_20180603T023920_C001         CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T023920_C001           CS_OFFL_SIR_GOPR1B_20180603T055611_20180603T055828_C001         CS_OFFL_SIR_GOPR1B_20180603T06006_20180603T06334_C001           CS_OFFL_SIR_GOPR1B_20180603T092608_20180603T093148_C001         CS_OFFL_SIR_GOPR1B_20180603T110758_20180603T10912_C001           CS_OFFL_SIR_GOPR1B_20180603T110758_20180603T109124_C001         CS_OFFL_SIR_GOPR1B_20180603T110758_20180603T109124_C001	this is to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo
Loss of Echo Flag: This flag is currently set for some products over land, but           Number of products with errors:         15           Product         15           CS_OFFL_SIR_GOPM1B_20180603T063503_20180603T064913_C001         CS_OFFL_SIR_GOPM1B_20180603T071305_20180603T071728_C001           CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001         CS_OFFL_SIR_GOPM1B_20180603T072319_20180603T072710_C001           CS_OFFL_SIR_GOPN1B_20180603T105447_20180603T105942_C001         CS_OFFL_SIR_GOPN1B_20180603T125757_20180603T125940_C001           CS_OFFL_SIR_GOPN1B_20180603T192312_20180603T102519_C001         CS_OFFL_SIR_GOPN1B_20180603T023607_20180603T023920_C001           CS_OFFL_SIR_GOPR1B_20180603T023607_20180603T023920_C001         CS_OFFL_SIR_GOPR1B_20180603T055611_20180603T055828_C001           CS_OFFL_SIR_GOPR1B_20180603T092608_20180603T093148_C001         CS_OFFL_SIR_GOPR1B_20180603T092608_20180603T093148_C001           CS_OFFL_SIR_GOPR1B_20180603T107558_20180603T10912_C001         CS_OFFL_SIR_GOPR1B_20180603T092608_20180603T093148_C001	this is to be expected.           Test Failed           Loss of Echo           Loss of Echo	Description           The tracking echo is missing for one or more records

#### 5.1 L2 Product Format Check

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

Number of products with errors:

#### 5.2 L2 Product Header Analysis

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

### 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.

Number of products with errors:

#### 5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

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

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 76

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20180602T234004_20180603T001256_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T001941_20180603T002511_C001		The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T002731_20180603T003258_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS\_OFFL\_SIR\_GOPM\_2\_20180603T010403\_20180603T010618\_C001 CS OFFL SIR GOPM 2 20180603T011852 20180603T015236 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T015843\_20180603T020356\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T020653\_20180603T022536\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T025720\_20180603T033054\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T033424\_20180603T033842\_C001 CS OFFL SIR GOPM 2 20180603T033901 20180603T034255 C001 CS OFFL SIR GOPM 2 20180603T034709 20180603T042115 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T042242\_20180603T042529\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T043743\_20180603T044822\_C001 CS OFFL SIR GOPM 2 20180603T045432 20180603T051028 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T051224\_20180603T051741\_C001 CS OFFL SIR GOPM 2 20180603T051800 20180603T051956 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T052814\_20180603T054118\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T054332\_20180603T055610\_C001 CS OFFL SIR GOPM 2 20180603T055828 20180603T060005 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T062258\_20180603T063323\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T063503\_20180603T064913\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T065149\_20180603T065652\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T065716\_20180603T065830\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T070523\_20180603T070621\_C001 CS OFFL SIR GOPM 2 20180603T071305 20180603T071728 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T072833\_20180603T073544\_C001 CS OFFL SIR GOPM 2 20180603T080724 20180603T082751 C001 CS OFFL SIR GOPM 2 20180603T083206 20180603T083608 C001 CS OFFL SIR GOPM 2 20180603T084246 20180603T091705 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T094422\_20180603T100800\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T100956\_20180603T101522\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T101528\_20180603T101853\_C001 CS OFFL SIR GOPM 2 20180603T102224 20180603T103321 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T103859\_20180603T105446\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T111848\_20180603T113923\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T114148\_20180603T114726\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T114957\_20180603T115800\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T120135\_20180603T123517\_C001 CS OFFL SIR GOPM 2 20180603T124844 20180603T124938 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T131135\_20180603T131812\_C001 CS OFFL SIR GOPM 2 20180603T131825 20180603T132627 C001 CS OFFL SIR GOPM 2 20180603T132933 20180603T133448 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T134125\_20180603T140259\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T140545\_20180603T141506\_C001 CS OFFL SIR GOPM 2 20180603T142648 20180603T143122 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T144608\_20180603T145155\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T145342\_20180603T150443\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T151059\_20180603T151348\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T152047\_20180603T155347\_C001 CS OFFL SIR GOPM 2 20180603T161003 20180603T161654 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T161707\_20180603T164126\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T165101\_20180603T165255\_C001 CS OFFL SIR GOPM 2 20180603T165955 20180603T172834 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T174455\_20180603T174852\_C001 Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice 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 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 Ocean Range Averaging Status Ice 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 Ice Range Averaging Status

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

CS_OFFL_SIR_GOPM_2_20180603T175017_20180603T180602_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T181222_20180603T182323_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T182940_20180603T183212_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T183236_20180603T183701_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T183930_20180603T185345_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T185525_20180603T185904_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T193218_20180603T193929_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T194052_20180603T200429_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T200723_20180603T201615_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T201847_20180603T204225_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T211935_20180603T214318_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T214653_20180603T214832_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T214940_20180603T215404_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T215810_20180603T222259_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T225112_20180603T230557_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T231132_20180603T232232_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T232854_20180603T233442_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T233624_20180604T000142_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20180603T133448_20180603T133753_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20180603T063323_20180603T063502_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20180603T080628_20180603T080724_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPR_2_20180603T223256_20180603T224255_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. 75

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20180602T234004_20180603T001256_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_20180603T001941_20180603T002511_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T002731_20180603T003258_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_20180603T010403_20180603T010618_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_20180603T011852_20180603T015236_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_20180603T015843_20180603T020356_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T020653_20180603T022536_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_20180603T025720_20180603T033054_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_20180603T033424_20180603T033842_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T033901_20180603T034255_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T034709_20180603T042115_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_20180603T042242_20180603T042529_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T043743_20180603T044822_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_20180603T045432_20180603T051028_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_20180603T051224_20180603T051741_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T051800_20180603T051956_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20180603T052814_20180603T054118_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_20180603T054332_20180603T055610_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_20180603T055828_20180603T060005_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_20180603T062258_20180603T063323_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_20180603T063503_20180603T064913_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\_20180603T065149\_20180603T065652\_C001 CS OFFL SIR GOPM 2 20180603T065716 20180603T065830 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T071305\_20180603T071728\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T072833\_20180603T073544\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T080724\_20180603T082751\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T083206\_20180603T083608\_C001 CS OFFL SIR GOPM 2 20180603T084246 20180603T091705 C001 CS OFFL SIR GOPM 2 20180603T094422 20180603T100800 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T100956\_20180603T101522\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T101528\_20180603T101853\_C001 CS OFFL SIR GOPM 2 20180603T102224 20180603T103321 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T103859\_20180603T105446\_C001 CS OFFL SIR GOPM 2 20180603T111848 20180603T113923 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T114148\_20180603T114726\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T114957\_20180603T115800\_C001 CS OFFL SIR GOPM 2 20180603T120135 20180603T123517 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T124844\_20180603T124938\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T131135\_20180603T131812\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T131825\_20180603T132627\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T132933\_20180603T133448\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T134125\_20180603T140259\_C001 CS OFFL SIR GOPM 2 20180603T140545 20180603T141506 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T142648\_20180603T143122\_C001 CS OFFL SIR GOPM 2 20180603T144608 20180603T145155 C001 CS OFFL SIR GOPM 2 20180603T145342 20180603T150443 C001 CS OFFL SIR GOPM 2 20180603T151059 20180603T151348 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T152047\_20180603T155347\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T161003\_20180603T161654\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T161707\_20180603T164126\_C001 CS OFFL SIR GOPM 2 20180603T165101 20180603T165255 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T165955\_20180603T172834\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T174455\_20180603T174852\_C001 CS OFFL SIR GOPM 2 20180603T175017 20180603T180602 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T181222\_20180603T182323\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T182940\_20180603T183212\_C001 CS OFFL SIR GOPM 2 20180603T183236 20180603T183701 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T183930\_20180603T185345\_C001 CS OFFL SIR GOPM 2 20180603T185525 20180603T185904 C001 CS OFFL SIR GOPM 2 20180603T193218 20180603T193929 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T194052\_20180603T200429\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T200723\_20180603T201615\_C001 CS OFFL SIR GOPM 2 20180603T201847 20180603T204225 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T211935\_20180603T214318\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T214653\_20180603T214832\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T214940\_20180603T215404\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T215810\_20180603T222259\_C001 CS OFFL SIR GOPM 2 20180603T225112 20180603T230557 C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T231132\_20180603T232232\_C001 CS\_OFFL\_SIR\_GOPM\_2\_20180603T232854\_20180603T233442\_C001 CS OFFL SIR GOPM 2 20180603T233624 20180604T000142 C001 CS\_OFFL\_SIR\_GOPN\_2\_20180603T133448\_20180603T133753\_C001

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

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

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

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

more records.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CS_OFFL_SIR_GOPR_2_20180603T080628_20180603T080724_C001       SWH Averaging Status, Ocean Backscatter Averaging Status, Ocean Backscatter Averaging Status, Ocean Mercercords.       The SWH and Ocean Averaging Status Flags have been set for one or more records.         CS_OFFL_SIR_GOPR_2_20180603T223256_20180603T224255_C001       SWH Averaging Status, Ocean Backscatter Averaging Status, Ocean Backscatter Averaging Status       The SWH and Ocean Averaging Status Flags have been set for one or more records.	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
		8 8 8

#### 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: 55

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: 0

# 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

0

#### 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

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180602T233043_20180603T002017_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T002017_20180603T010956_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T010956_20180603T015931_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T015931_20180603T024910_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T024910_20180603T033844_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_220180603T033844_20180603T042823_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_220180603T042823_20180603T051758_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_220180603T051758_20180603T060737_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T060737_20180603T065712_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_220180603T065712_20180603T074650_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T074650_20180603T083625_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_220180603T083625_20180603T092604_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T092604_20180603T101539_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_220180603T101539_20180603T110518_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_220180603T110518_20180603T115453_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_220180603T115453_20180603T124431_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_220180603T124431_20180603T133406_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_220180603T133406_20180603T142345_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T142345_20180603T151320_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_220180603T151320_20180603T160258_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_220180603T160258_20180603T165233_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T165233_20180603T174212_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_2_20180603T174212_20180603T183147_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_20180603T183147_20180603T192125_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_20180603T192125_20180603T201100_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_20180603T201100_20180603T210039_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_20180603T210039_20180603T215014_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T215014_20180603T223953_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20180603T223953_20180603T232928_C002	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T232928_20180604T001906_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

### 6.7 P2P SWH and Backscatter Measurement Check

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

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

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

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180602T233043_20180603T002017_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_20180603T002017_20180603T010956_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_20180603T010956_20180603T015931_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_20180603T015931_20180603T024910_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_220180603T024910_20180603T033844_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_220180603T033844_20180603T042823_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_220180603T042823_20180603T051758_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_220180603T051758_20180603T060737_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_220180603T060737_20180603T065712_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_220180603T065712_20180603T074650_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_220180603T074650_20180603T083625_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_220180603T083625_20180603T092604_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_220180603T092604_20180603T101539_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_220180603T101539_20180603T110518_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_220180603T110518_20180603T115453_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_220180603T115453_20180603T124431_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_220180603T124431_20180603T133406_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_220180603T133406_20180603T142345_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_220180603T142345_20180603T151320_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_220180603T151320_20180603T160258_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_220180603T160258_20180603T165233_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_220180603T165233_20180603T174212_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_220180603T174212_20180603T183147_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_220180603T183147_20180603T192125_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_220180603T192125_20180603T201100_C001	Backscatter Averaging Status Tce	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220180603T201100_20180603T210039_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_220180603T210039_20180603T215014_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_220180603T215014_20180603T223953_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_220180603T223953_20180603T232928_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_2_20180603T232928_20180604T001906_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.

# 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: 30

Number of products with errors.

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220180602T233043_20180603T002017_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T002017_20180603T010956_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T010956_20180603T015931_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T015931_20180603T024910_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T024910_20180603T033844_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T033844_20180603T042823_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T042823_20180603T051758_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T051758_20180603T060737_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T060737_20180603T065712_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T065712_20180603T074650_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T074650_20180603T083625_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T083625_20180603T092604_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T092604_20180603T101539_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T101539_20180603T110518_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T110518_20180603T115453_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T115453_20180603T124431_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T124431_20180603T133406_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T133406_20180603T142345_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T142345_20180603T151320_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T151320_20180603T160258_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T160258_20180603T165233_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T165233_20180603T174212_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T174212_20180603T183147_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T183147_20180603T192125_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T192125_20180603T201100_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T201100_20180603T210039_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T210039_20180603T215014_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T215014_20180603T223953_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T223953_20180603T232928_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220180603T232928_20180604T001906_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
	·	