

# IDEAS+ Daily Report for IOP data:

## <u>05/03/2018</u>



Report Production:       07-Mar-20         Processor Used:       CryoSat Ocean         Data Used:       Intermediate Ocean F         L1B, L2 & P2P Sc         None         04-Mar-2018         None         06-Mar-2018         Nothing planned	Processor Products (IOP)	Server check Prod Prod Auxiliary Auxiliary Measureme Range, SWH & B Ocean R	Check : science-pds.cryosat.esa.in k: calval-pds.cryosat.esa.in luct Software Check duct Format Check luct Header Analysis Data File Usage Check c Correction Error Check ant Confidence Data Check Sackscatter Measurement C tetracking Quality Check al Coverage	nt it	L1 & L2 Nominal Nominal Nominal Nominal Nominal Section 4.6 Section 5.6, 5.7 Section 5.8	P2P Nominal Nominal Nominal Nominal Nominal See Section 6.6, 6. See Section 6.8
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## 3. Instrument Configuration

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

SIRAL - A

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SIRAL instrument(s) in use:

4. IOP Level 1B Data Quality Check

## 4.1 L1B Product Format Check

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

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Number of products with errors:

### 4.2 L1B Product Header Analysis

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

4.3 L1B Auxilary Data File Usage Check					
Each product is checked for missing Data Set Descriptors with respect to a pre-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 record. The bit value of this flag indicates any problems when set.					
Number of products with errors: 0					
4.5 L1B Measurement Confidence Data Check					
CryoSat L1B data includes a measurement confidence flag for each measurer	nent record. The bit value of this fl	ag indicates any problems when set.			
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts due to a configuration issue. T	his is being investigated and will be updated in the next SW update.			
Number of products with errors: 0					
4.6 L1B Waveform Group Data Check					
CryoSat L1B data includes a waveform data flag for each measurement record	d. The bit value of this flag indicate	es any problems when set.			
CryoSat L1B data includes a waveform data flag for each measurement recore Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set.			
Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set.			
Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set. Description			
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19	to be expected.				
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product	to be expected.	Description			
Loss of Echo Flag: This flag is currently set for products over land, but this is         Number of products with errors:       19         Product       CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 19 Product CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001 CS_OFFL_SIR_IOPM1B_20180305T220753_20180305T222332_C001	to be expected.  Test Failed Loss of Echo Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
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Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         10           CS_OFFL_SIR_IOPM1B_20180305T202753_20180305T222332_C001         10           CS_OFFL_SIR_IOPM1B_20180305T222534_20180305T223457_C001         10           CS_OFFL_SIR_IOPM1B_20180305T012214_20180305T012700_C001         10	to be expected.           Test Failed           Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         10           CS_OFFL_SIR_IOPM1B_20180305T202753_20180305T22332_C001         10           CS_OFFL_SIR_IOPM1B_20180305T222354_20180305T223457_C001         10           CS_OFFL_SIR_IOPM1B_20180305T012214_20180305T012700_C001         10           CS_OFFL_SIR_IOPN1B_20180305T012214_20180305T012700_C001         10           CS_OFFL_SIR_IOPN1B_20180305T060916_20180305T012700_C001         10	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 products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         10           CS_OFFL_SIR_IOPM1B_20180305T220753_20180305T222332_C001         10           CS_OFFL_SIR_IOPM1B_20180305T222534_20180305T2223457_C001         10           CS_OFFL_SIR_IOPM1B_20180305T012214_20180305T012700_C001         10           CS_OFFL_SIR_IOPN1B_20180305T060916_20180305T075049_C001         10           CS_OFFL_SIR_IOPN1B_20180305T075001_20180305T075049_C001         10           CS_OFFL_SIR_IOPN1B_20180305T075012714_20180305T0755049_C001         10	to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         1000000000000000000000000000000000000	to be expected.	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         10           CS_OFFL_SIR_IOPM1B_20180305T202753_20180305T222332_C001         10           CS_OFFL_SIR_IOPM1B_20180305T222534_20180305T223457_C001         10           CS_OFFL_SIR_IOPN1B_20180305T012214_20180305T012700_C001         10           CS_OFFL_SIR_IOPN1B_20180305T060916_20180305T0760139_C001         10           CS_OFFL_SIR_IOPN1B_20180305T07501_20180305T075049_C001         10           CS_OFFL_SIR_IOPN1B_20180305T075147_20180305T075550_C001         10           CS_OFFL_SIR_IOPN1B_20180305T0753220180305T0750446_C001         10	Test Failed         Loss of Echo         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         CS_OFFL_SIR_IOPM1B_20180305T220753_20180305T222332_C001           CS_OFFL_SIR_IOPM1B_20180305T222534_20180305T2223457_C001         CS_OFFL_SIR_IOPM1B_20180305T012214_20180305T0223457_C001           CS_OFFL_SIR_IOPN1B_20180305T012214_20180305T061039_C001         CS_OFFL_SIR_IOPN1B_20180305T075001_20180305T075049_C001           CS_OFFL_SIR_IOPN1B_20180305T075147_20180305T075505_C001         CS_OFFL_SIR_IOPN1B_20180305T093352_20180305T093446_C001           CS_OFFL_SIR_IOPN1B_20180305T093352_20180305T093446_C001         CS_OFFL_SIR_IOPN1B_20180305T0111147_20180305T111400_C001	Test Failed         Loss of Echo         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records			
Loss of Echo Flag: This flag is currently set for products over land, but this is           Number of products with errors:         19           Product         19           CS_OFFL_SIR_IOPM1B_20180305T202853_20180305T204728_C001         CS_OFFL_SIR_IOPM1B_20180305T220753_20180305T222332_C001           CS_OFFL_SIR_IOPM1B_20180305T222534_20180305T2223457_C001         CS_OFFL_SIR_IOPM1B_20180305T012214_20180305T012700_C001           CS_OFFL_SIR_IOPN1B_20180305T060916_20180305T061039_C001         CS_OFFL_SIR_IOPN1B_20180305T075001_20180305T075049_C001           CS_OFFL_SIR_IOPN1B_20180305T075147_20180305T075500_C001         CS_OFFL_SIR_IOPN1B_20180305T075147_20180305T0793446_C001           CS_OFFL_SIR_IOPN1B_20180305T111147_20180305T111400_C001         CS_OFFL_SIR_IOPN1B_20180305T111147_20180305T1134952_C001	Test Failed         Loss of Echo         Loss of Echo	Description           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           The tracking echo is missing for one or more records           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			

CS_OFFL_SIR_IOPN1B_20180305T161552_20180305T161617_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180305T175550_20180305T175615_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180305T225159_20180305T225308_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180305T225420_20180305T225559_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180305T025713_20180305T030241_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180305T042313_20180305T042417_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180305T143031_20180305T144038_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180305T160817_20180305T161552_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180305T162508_20180305T162706_C001	Loss of Echo	The tracking echo is missing for one or more records

## 5. IOP Level 2 Data Quality Check

## 5.1 L2 Product Format Check

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

Number of products with errors:

#### 5.2 L2 Product Header Analysis

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

### 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

## 5.4 L2 Auxiliary Correction Error Check

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

0

0

# 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.

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. 73

Number of products with errors:

Product Test Failed Description The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T000045\_20180305T000532\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T000809\_20180305T002503\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T002725\_20180305T003607\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T003815 20180305T010055 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T012924\_20180305T020426\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T020931 20180305T021401 C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T021659\_20180305T024402\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T031238\_20180305T032550\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T033126\_20180305T034325\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T034847 20180305T035439 C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T035605\_20180305T041712\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T041910 20180305T042312 C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T044709\_20180305T052222\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T052754\_20180305T053310\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T053444 20180305T053752 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T053951\_20180305T054225\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T054418\_20180305T055155\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T061039 20180305T061318 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T062722\_20180305T063559\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T063845\_20180305T070132\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T070802 20180305T071209 C001 Ice Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T071342 20180305T072717 C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T072905\_20180305T073621\_C001 Ocean Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T073703 20180305T074140 C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T080721\_20180305T083951\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T084134\_20180305T084653\_C001 Ice Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T085351 20180305T085450 C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T085754\_20180305T092806\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T092942 20180305T093351 C001 Ice Range Averaging Status ecords The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T094900\_20180305T100115\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T100319\_20180305T101907\_C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T102050 20180305T102550 C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T102610\_20180305T102622\_C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T103510\_20180305T104532\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T105151 20180305T110303 C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T114318 20180305T115758 C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T120003 20180305T120501 C001 Ice Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T121127\_20180305T124525\_C001 Ocean Range Averaging Status records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T131318 20180305T133738 C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T134047\_20180305T134418\_C001 Ice Range Averaging Status ecord The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T134440\_20180305T134808\_C001 Ice Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T135026\_20180305T141906\_C001 Ocean Range Averaging Status records. The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOPM 2 20180305T145125 20180305T151658 C001 Ocean Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T151830\_20180305T152331\_C001 Ice Range Averaging Status records The Ice Range Averaging Status Flag has been set for one or more CS\_OFFL\_SIR\_IOPM\_2\_20180305T152339\_20180305T152706\_C001 Ice Range Averaging Status records

00 0FEL 010 100M 2 201002057452052 201002057454444 0004	Ocean Dance Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180305T152952_20180305T154141_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180305T154719_20180305T160452_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20180305T165018_20180305T165649_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T165828_20180305T170403_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T170916_20180305T174322_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T181636_20180305T183615_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T183750_20180305T184258_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T184819_20180305T192305_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T194738_20180305T195157_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T195254_20180305T201029_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T201329_20180305T201445_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T202000_20180305T202202_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T202853_20180305T204728_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T205104_20180305T205811_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T211812_20180305T213600_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T213719_20180305T215109_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T215911_20180305T220111_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T220220_20180305T220613_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T220753_20180305T222332_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T222534_20180305T223457_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T230248_20180305T231419_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T233005_20180305T233400_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T233718_20180305T234514_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20180305T025424_20180305T025459_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20180305T035439_20180305T035605_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180305T070133_20180305T070220_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180305T084706_20180305T084713_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180305T165649_20180305T165713_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. 71

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20180305T000045_20180305T000532_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T000809_20180305T002503_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T002725_20180305T003607_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T003815_20180305T010055_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T012924_20180305T020426_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T021659_20180305T024402_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T031238_20180305T032550_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T033126_20180305T034325_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T034847_20180305T035439_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T035605_20180305T041712_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T041910_20180305T042312_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T044709_20180305T052222_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T052754_20180305T053310_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T053951_20180305T054225_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180305T061039_20180305T061318_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS\_OFFL\_SIR\_IOPM\_2\_20180305T062722\_20180305T063559\_C001 CS OFFL SIR IOPM 2 20180305T063845 20180305T070132 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T070802\_20180305T071209\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T071342\_20180305T072717\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T072905\_20180305T073621\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T073703\_20180305T074140\_C001 CS OFFL SIR IOPM 2 20180305T080721 20180305T083951 C001 CS OFFL SIR IOPM 2 20180305T084134 20180305T084653 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T085351\_20180305T085450\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T085754\_20180305T092806\_C001 CS OFFL SIR IOPM 2 20180305T092942 20180305T093351 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T094900\_20180305T100115\_C001 CS OFFL SIR IOPM 2 20180305T100319 20180305T101907 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T102050\_20180305T102550\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T102610\_20180305T102622\_C001 CS OFFL SIR IOPM 2 20180305T103510 20180305T104532 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T105151\_20180305T110303\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T114318\_20180305T115758\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T120003\_20180305T120501\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T121127\_20180305T124525\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T131318\_20180305T133738\_C001 CS OFFL SIR IOPM 2 20180305T134047 20180305T134418 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T134440\_20180305T134808\_C001 CS OFFL SIR IOPM 2 20180305T135026 20180305T141906 C001 CS OFFL SIR IOPM 2 20180305T145125 20180305T151658 C001 CS OFFL SIR IOPM 2 20180305T151830 20180305T152331 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T152339\_20180305T152706\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T152952\_20180305T154141\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T154719\_20180305T160452\_C001 CS OFFL SIR IOPM 2 20180305T165018 20180305T165649 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T165828\_20180305T170403\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T170916\_20180305T174322\_C001 CS OFFL SIR IOPM 2 20180305T175713 20180305T175812 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T181636\_20180305T183615\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T183750\_20180305T184258\_C001 CS OFFL SIR IOPM 2 20180305T184819 20180305T192305 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T194738\_20180305T195157\_C001 CS OFFL SIR IOPM 2 20180305T195254 20180305T201029 C001 CS OFFL SIR IOPM 2 20180305T201329 20180305T201445 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T202000\_20180305T202202\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T202853\_20180305T204728\_C001 CS OFFL SIR IOPM 2 20180305T205104 20180305T205811 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T211812\_20180305T213600\_C001 CS OFFL SIR IOPM 2 20180305T213719 20180305T215109 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T215911\_20180305T220111\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T220220\_20180305T220613\_C001 CS OFFL SIR IOPM 2 20180305T220753 20180305T222332 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T222534\_20180305T223457\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T230248\_20180305T231419\_C001 CS OFFL SIR IOPM 2 20180305T233005 20180305T233400 C001 CS\_OFFL\_SIR\_IOPM\_2\_20180305T233718\_20180305T234514\_C001 SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

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

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 SWH Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

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

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status SWH Averaging Status, Ocean

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

Ice Backscatter Averaging Status

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

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

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

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

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

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

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

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

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

more records.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The 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.

Product		Test Failed	Description
Number of products with errors:	29		
Ice Range Averaging Status Flag: This flag	g is currently set for products over	land, but this is to be expected.	
Ocean Range Averaging Status Flag: This	s flag is currently set for products o	ver land and sea ice, but this is to be expec	sted.
Currently, there are two common status f highlighting any additional issues which		which are expected due to surface type.	All common flags are summarised in the list below, followed by a table
CryoSat P2P data includes an Ocean and Ic	e Range Averaging Status flag for	each measurement record. The bit value o	this flag indicates any problems when set.
6.6 P2P Range Measurement	Check		
Number of products with errors:	0		
CryoSat P2P data includes a measurement	confidence flag for each 20-Hz me	asurement record. The bit value of this flag	indicates any problems when set.
6.5 P2P Measurement Confide	ence Data Check		
For all products, the auxiliary corrections wit Number of products with errors:	thin the Geophysical Group are che	ecked for the default error value (32767).	
6.4 P2P Auxiliary Correction E			
6 / D2D Auviliany Correction I	Fror Chock		
Number of products with errors:	0		
Each product is checked for missing Data S	et Descriptors with respect to a pre	e-determined baseline and also to check the	validity of Auxiliary Data Files is correct.
6.3 P2P Auxiliary Data File Us	age Check		
Number of products with errors:	0		
		SPH in order to identify any inconsistencie	s and/or errors raised by the ground-segment processing chain.
6.2 P2P Product Header Analy	ysis		
Number of products with errors:			
Each product, retrieved and unpacked from		neuro it consists of both an YML boader file	(HDD) and a NotCDE product file ( no)
6.1 P2P Product Format Chec			
	6. IOP L2	2 Pole-to-Pole Data Quali	ty Check
Number of products with errors:	53		
		nd and sea ice, but this is to be expected. T	he number of products with this error flag set is given below.
CryoSat L2 data includes an ocean retracking	ng quality flag for each 20-Hz meas	surement record. The bit value of this flag in	dicates any problems when set.
5.8 L2 Ocean Retracking Qua	lity Check		
		Backscatter Averaging Status	more records.
CS OFFL SIR IOPR 2 20180305T165649	9 20180305T165713 C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPR_2_20180305T084706	6_20180305T084713_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180305T070133	3_20180305T070220_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_IOPN_2_20180305T035439	9_20180305T035605_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180304T234116_20180305T003050_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_IOP_220180305T003050_20180305T012030_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T012030_20180305T021004_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T021004_20180305T025943_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T025943_20180305T034917_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T034917_20180305T043857_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T043857_20180305T052831_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T052831_20180305T061811_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T061811_20180305T070744_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T070744_20180305T075724_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T075724_20180305T084658_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T084658_20180305T093638_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T093638_20180305T102611_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T102611_20180305T111551_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T111551_20180305T120525_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T120525_20180305T125505_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T125505_20180305T134439_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T134439_20180305T143418_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T143418_20180305T152352_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T152352_20180305T161332_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOP_220180305T161332_20180305T170306_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T170306_20180305T175245_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T175245_20180305T184219_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T184219_20180305T193159_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T193159_20180305T202133_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T202133_20180305T211112_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T211112_20180305T220046_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T220046_20180305T225026_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T225026_20180305T234000_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. 29

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180304T234116_20180305T003050_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_IOP_2_20180305T003050_20180305T012030_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T012030_20180305T021004_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T021004_20180305T025943_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T025943_20180305T034917_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T034917_20180305T043857_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T043857_20180305T052831_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T052831_20180305T061811_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T061811_20180305T070744_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T070744_20180305T075724_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T075724_20180305T084658_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T084658_20180305T093638_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T093638_20180305T102611_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T102611_20180305T111551_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T111551_20180305T120525_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T120525_20180305T125505_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T125505_20180305T134439_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T134439_20180305T143418_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T143418_20180305T152352_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T152352_20180305T161332_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T161332_20180305T170306_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T170306_20180305T175245_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T175245_20180305T184219_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T184219_20180305T193159_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOP_220180305T193159_20180305T202133_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180305T202133_20180305T211112_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T211112_20180305T220046_C001		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T220046_20180305T225026_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180305T225026_20180305T234000_C001	Backscatter Averaging Status Ice	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

## 6.8 P2P Ocean Retracking Quality Check

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

26

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.

ber of products with errors:
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Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180304T234116_20180305T003050_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T003050_20180305T012030_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T012030_20180305T021004_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T021004_20180305T025943_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T025943_20180305T034917_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T034917_20180305T043857_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T043857_20180305T052831_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T052831_20180305T061811_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T061811_20180305T070744_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T070744_20180305T075724_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T075724_20180305T084658_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T084658_20180305T093638_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T093638_20180305T102611_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T102611_20180305T111551_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T120525_20180305T125505_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T125505_20180305T134439_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T134439_20180305T143418_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T143418_20180305T152352_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T161332_20180305T170306_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T170306_20180305T175245_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T184219_20180305T193159_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T193159_20180305T202133_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T202133_20180305T211112_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T211112_20180305T220046_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T220046_20180305T225026_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180305T225026_20180305T234000_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
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