

# **IDEAS+ Daily Report for IOP data:**

# 12/05/2019

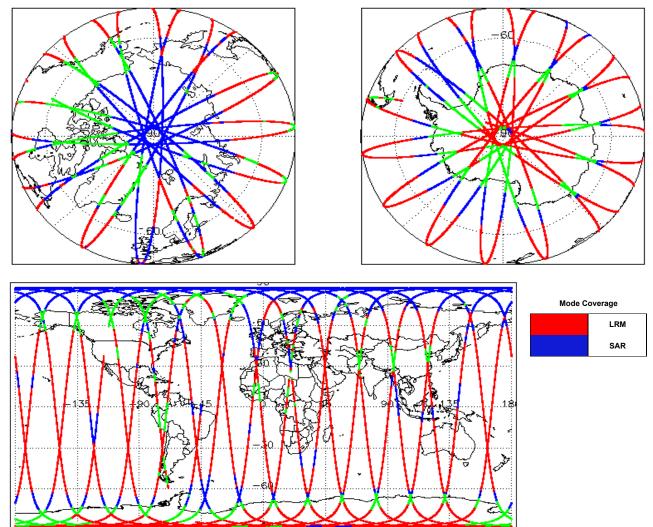
1. Overview				
		Check	L1 & L2	P2P
Report Production:	15-May-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Dura a ser a la seda		Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Useu.	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 4.5, 4.6	Nominal
		Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7
		Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

Overview

#### Mission / Instrument News 11-May-2019 None 12-May-2019 None nned

13-May-2019	Nothing plan
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2. Global Coverage



## 3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

0

4. IOP Level 1B Data Quality Check

## 4.1 L1B Product Format Check

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

Number of products with errors:

## 4.2 L1B Product Header Analysis

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

Each product is checked for missing Data Set Descriptors with respect to a pr	e-determined baseline and also t	o 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 reco	rd. The bit value of this flag indica	ates 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 measure	ment record. The bit value of this	flag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts 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		
CryoSat L1B data includes a waveform data flag for each measurement recor	d. The bit value of this flag indica	tes any problems when set.
.oss of Echo Flag: This flag is currently set for products over land, but this is	s to be expected.	
Number of products with errors: 22		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20190512T123317_20190512T124637_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190512T142809_20190512T143230_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPM1B_20190512T182338_20190512T184355_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T031904_20190512T032452_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T045357_20190512T045420_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T055151_20190512T055315_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T080807_20190512T080853_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T095032_20190512T095251_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T113048_20190512T113154_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T180025_20190512T180457_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190512T222254_20190512T222407_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPN1B_20190512T231012_20190512T231353_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T014251_20190512T014434_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T031339_20190512T031904_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T045254_20190512T045357_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T045420_20190512T045920_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T062811_20190512T063005_C001	Loss of Echo	The tracking echo is missing for one or more records
S OFFL SIR IOPR1B 20190512T063128 20190512T064119 C001	Loss of Echo	The tracking echo is missing for one or more records
	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOPR1B_20190512T081211_20190512T082013_C001	LOSS OF ECHO	The tracking cond is missing for one of more records
	Loss of Echo	The tracking echo is missing to one or more records
CS_OFFL_SIR_IOPR1B_20190512T081211_20190512T082013_C001 CS_OFFL_SIR_IOPR1B_20190512T095251_20190512T100035_C001 CS_OFFL_SIR_IOPR1B_20190512T213622_20190512T214028_C001		
S_OFFL_SIR_IOPR1B_20190512T095251_20190512T100035_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

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: 0

#### 5.2 L2 Product Header Analysis

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

### 5.3 L2 Auxiliary Data File Usage Check

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

 Number of products with errors:
 0

## 5.4 L2 Auxiliary Correction Error Check

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

0

### 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. 82

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190512T002508_20190512T003926_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T004656_20190512T004901_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T004957_20190512T005403_C001	Ice Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T005601_20190512T011119_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T011320_20190512T012243_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T014933_20190512T020208_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T020740_20190512T021613_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T021639_20190512T022110_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T022454_20190512T023305_C001	Ice Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T023538_20190512T025109_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T033407_20190512T040031_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190512T040621 20190512T041141 C001	Ice Range Averaging Status	records. The lce Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T041514_20190512T043817_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190512T051129 20190512T052249 C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T052826_20190512T053917_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T054548_20190512T055151_C001	Ice Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T055339_20190512T061457_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190512T064509 20190512T071812 C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T072457_20190512T073024_C001	Ice Range Averaging Status	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
CS_OFFL_SIR_IOPM_2_20190512T073246_20190512T073815_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T080912_20190512T081210_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T082401_20190512T083332_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T083545_20190512T085755_C001	Ocean Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T090356_20190512T090501_C001	Ice Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T090504_20190512T090913_C001	Ice Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T091206_20190512T093052_C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T100243_20190512T103611_C001	Ocean Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T103926_20190512T104358_C001	Ice Range Averaging Status	records. The loc Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T104417_20190512T104807_C001	Ice Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190512T105500_20190512T112629_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20190512T114305_20190512T114353_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T114506_20190512T115338_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T115819_20190512T121543_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T121739_20190512T122256_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T123317_20190512T124637_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T124851_20190512T130127_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T132816_20190512T133548_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T134018_20190512T135430_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T135705_20190512T140207_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T141040_20190512T141143_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T141703_20190512T142305_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T142809_20190512T143230_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T143353_20190512T143417_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T151223_20190512T153313_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T153730_20190512T154124_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOPM_2_20190512T154145_20190512T154414_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T154802_20190512T161440_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T164821_20190512T171322_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T171515_20190512T172037_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T172044_20190512T172410_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T172741_20190512T173839_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T174418_20190512T180024_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T182338_20190512T184355_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T184706_20190512T185244_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T185516_20190512T190315_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T190702_20190512T194026_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T195400_20190512T195451_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T201540_20190512T203148_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T203449_20190512T204003_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T204637_20190512T210818_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T211104_20190512T212034_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T213153_20190512T213622_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T215108_20190512T215710_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T215857_20190512T220953_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T222606_20190512T225903_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T231508_20190512T232211_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T232225_20190512T234640_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T235616_20190512T235811_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T005403_20190512T005540_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T020208_20190512T020740_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T022250_20190512T022454_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T122510_20190512T122709_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T154139_20190512T154145_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T181240_20190512T181316_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T194240_20190512T194424_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190512T200316_20190512T200442_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T071812_20190512T072130_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T105331_20190512T105500_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T112629_20190512T112646_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T144224_20190512T144429_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T212243_20190512T212959_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190512T222407_20190512T222605_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. 84

#### Number of products with errors:

Product	Test Failed	Description
CS OFFE SIR TOPM 2 201905121002508 201905121003926 CO01		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T004656_20190512T004901_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190512T004957_20190512T005403_C001	lice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS OFFE SIR TOPM 2 201905121005601 201905121011119 CO01	0 0	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS OFFE SIR TOPM 2 201905121011320 201905121012243 CO01		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\_IOPM\_2\_20190512T020740\_20190512T021613\_C001 CS OFFL SIR IOPM 2 20190512T022454 20190512T023305 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T023538\_20190512T025109\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T033407\_20190512T040031\_C001 CS OFFL SIR IOPM 2 20190512T040621 20190512T041141 C001 CS OFFL SIR IOPM 2 20190512T041514 20190512T043817 C001 CS OFFL SIR IOPM 2 20190512T051129 20190512T052249 C001 CS OFFL SIR IOPM 2 20190512T052826 20190512T053917 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T054548\_20190512T055151\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T055339\_20190512T061457\_C001 CS OFFL SIR IOPM 2 20190512T064509 20190512T071812 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T072457\_20190512T073024\_C001 CS OFFL SIR IOPM 2 20190512T073246 20190512T073815 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T080912\_20190512T081210\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T082401\_20190512T083332\_C001 CS OFFL SIR IOPM 2 20190512T083545 20190512T085755 C001 CS OFFL SIR IOPM 2 20190512T090356 20190512T090501 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T090504\_20190512T090913\_C001 CS OFFL SIR IOPM 2 20190512T091206 20190512T093052 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T094856\_20190512T094904\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T100243\_20190512T103611\_C001 CS OFFL SIR IOPM 2 20190512T103926 20190512T104358 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T104417\_20190512T104807\_C001 CS OFFL SIR IOPM 2 20190512T105500 20190512T112629 C001 CS OFFL SIR IOPM 2 20190512T114305 20190512T114353 C001 CS OFFL SIR IOPM 2 20190512T114506 20190512T115338 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T115819\_20190512T121543\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T121739\_20190512T122256\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T122331\_20190512T122509\_C001 CS OFFL SIR IOPM 2 20190512T123317 20190512T124637 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T124851\_20190512T130127\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T130425\_20190512T130507\_C001 CS OFFL SIR IOPM 2 20190512T132816 20190512T133548 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T134018\_20190512T135430\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T135705\_20190512T140207\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T141040\_20190512T141143\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T141703\_20190512T142305\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T143353\_20190512T143417\_C001 CS OFFL SIR IOPM 2 20190512T143513 20190512T144102 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T151223\_20190512T153313\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T153730\_20190512T154124\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T154145\_20190512T154414\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T154802\_20190512T161440\_C001 CS OFFL SIR IOPM 2 20190512T164821 20190512T171322 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T171515\_20190512T172037\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T172044\_20190512T172410\_C001 CS OFFL SIR IOPM 2 20190512T172741 20190512T173839 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T174418\_20190512T180024\_C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T182338\_20190512T184355\_C001 CS OFFL SIR IOPM 2 20190512T184706 20190512T185244 C001 CS\_OFFL\_SIR\_IOPM\_2\_20190512T185516\_20190512T190315\_C001 SWH Averaging Status, Ocean Backscatter Averaging Status

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

Backscatter Averaging Status

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

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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

Ice Backscatter Averaging Status

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

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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.

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

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

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

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

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

The 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.

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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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CS_OFFL_SIR_IOPM_2_20190512T190702_20190512T194026_C001
CS_OFFL_SIR_IOPM_2_20190512T195400_20190512T195451_C001
CS_OFFL_SIR_IOPM_2_20190512T201540_20190512T203148_C001
CS_OFFL_SIR_IOPM_2_20190512T203449_20190512T204003_C001
CS_OFFL_SIR_IOPM_2_20190512T204637_20190512T210818_C001
CS_OFFL_SIR_IOPM_2_20190512T211104_20190512T212034_C001
CS_OFFL_SIR_IOPM_2_20190512T213153_20190512T213622_C001
CS_OFFL_SIR_IOPM_2_20190512T215108_20190512T215710_C001
CS_OFFL_SIR_IOPM_2_20190512T215857_20190512T220953_C001
CS_OFFL_SIR_IOPM_2_20190512T222606_20190512T225903_C001
CS_OFFL_SIR_IOPM_2_20190512T231508_20190512T232211_C001
CS_OFFL_SIR_IOPM_2_20190512T232225_20190512T234640_C001
CS_OFFL_SIR_IOPM_2_20190512T235616_20190512T235811_C001
CS_OFFL_SIR_IOPN_2_20190512T005403_20190512T005540_C001
CS_OFFL_SIR_IOPN_2_20190512T020208_20190512T020740_C001
CS_OFFL_SIR_IOPN_2_20190512T022250_20190512T022454_C001
CS_OFFL_SIR_IOPN_2_20190512T122510_20190512T122709_C001
CS_OFFL_SIR_IOPN_2_20190512T154139_20190512T154145_C001
CS_OFFL_SIR_IOPN_2_20190512T181240_20190512T181316_C001
CS_OFFL_SIR_IOPN_2_20190512T194240_20190512T194424_C001
CS_OFFL_SIR_IOPN_2_20190512T200316_20190512T200442_C001
CS_OFFL_SIR_IOPR_2_20190512T071812_20190512T072130_C001
CS_OFFL_SIR_IOPR_2_20190512T105331_20190512T105500_C001
CS_OFFL_SIR_IOPR_2_20190512T112629_20190512T112646_C001
CS_OFFL_SIR_IOPR_2_20190512T144224_20190512T144429_C001
CS_OFFL_SIR_IOPR_2_20190512T212243_20190512T212959_C001
CS_OFFL_SIR_IOPR_2_20190512T222407_20190512T222605_C001

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

### 5.8 L2 Ocean Retracking Quality Check

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

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

Number of products with errors:

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

#### 6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc). Number of products with errors: 0

#### 6.2 P2P Product Header Analysis

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

#### Number of products with errors:

#### 6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

#### 6.4 P2P Auxiliary Correction Error Check

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

65

Number of products with errors:

#### 6.5 P2P Measurement Confidence Data Check

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

Number of products with errors:

#### 6.6 P2P Range Measurement Check

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

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

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

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

Number of products with errors: 29

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190511T235858_20190512T004832_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T004832_20190512T013811_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_220190512T013811_20190512T022746_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T022746_20190512T031725_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_220190512T031725_20190512T040700_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_220190512T040700_20190512T045639_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_220190512T045639_20190512T054613_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T054613_20190512T063552_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T063552_20190512T072527_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_220190512T072527_20190512T081506_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20190512T081506_20190512T090440_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_220190512T090440_20190512T095419_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_220190512T095419_20190512T104354_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_220190512T104354_20190512T113333_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_220190512T113333_20190512T122307_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_220190512T122307_20190512T131246_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T131246_20190512T140221_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_220190512T140221_20190512T145200_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T145200_20190512T154135_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_220190512T154135_20190512T163114_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T163114_20190512T172048_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_220190512T172048_20190512T181027_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_220190512T181027_20190512T190002_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_220190512T190002_20190512T194941_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T194941_20190512T203916_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_220190512T203916_20190512T212854_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T212854_20190512T221829_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_220190512T221829_20190512T230808_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T230808_20190512T235742_C002	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.

#### 6.7 P2P SWH and Backscatter Measurement Check

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

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

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

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

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 29

Number o	f products wit	h errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190511T235858_20190512T004832_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_220190512T004832_20190512T013811_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_220190512T013811_20190512T022746_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_20190512T022746_20190512T031725_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_220190512T031725_20190512T040700_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_220190512T040700_20190512T045639_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_220190512T045639_20190512T054613_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_220190512T054613_20190512T063552_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_220190512T063552_20190512T072527_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_20190512T072527_20190512T081506_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_220190512T081506_20190512T090440_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_220190512T090440_20190512T095419_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_220190512T095419_20190512T104354_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_220190512T104354_20190512T113333_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_220190512T113333_20190512T122307_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_220190512T122307_20190512T131246_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_220190512T131246_20190512T140221_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_220190512T140221_20190512T145200_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_220190512T145200_20190512T154135_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_220190512T154135_20190512T163114_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_220190512T163114_20190512T172048_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_220190512T172048_20190512T181027_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_220190512T181027_20190512T190002_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_220190512T190002_20190512T194941_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_220190512T194941_20190512T203916_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_220190512T203916_20190512T212854_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_220190512T212854_20190512T221829_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_20190512T221829_20190512T230808_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_20190512T230808_20190512T235742_C002	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

## 6.8 P2P Ocean Retracking Quality Check

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below. Number of products with errors: 28

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190511T235858_20190512T004832_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T004832_20190512T013811_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T013811_20190512T022746_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T022746_20190512T031725_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T031725_20190512T040700_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T040700_20190512T045639_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T045639_20190512T054613_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T054613_20190512T063552_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T063552_20190512T072527_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T072527_20190512T081506_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T081506_20190512T090440_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T090440_20190512T095419_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.

CS_OFFL_SIR_IOP_220190512T095419_20190512T104354_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T104354_20190512T113333_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T113333_20190512T122307_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T122307_20190512T131246_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T131246_20190512T140221_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T140221_20190512T145200_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T145200_20190512T154135_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T154135_20190512T163114_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T163114_20190512T172048_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T172048_20190512T181027_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T181027_20190512T190002_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T190002_20190512T194941_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T203916_20190512T212854_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T212854_20190512T221829_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T221829_20190512T230808_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190512T230808_20190512T235742_C002	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.