



1. Overview

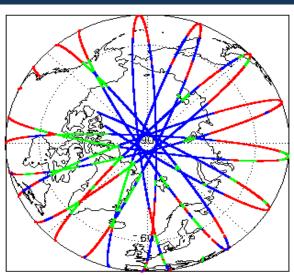
Report Production:	14-Feb-2019	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	

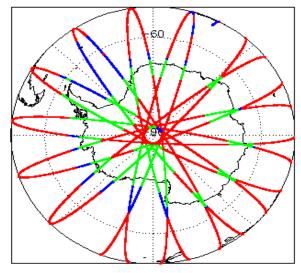
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	Nominal	Nominal
Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7
Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

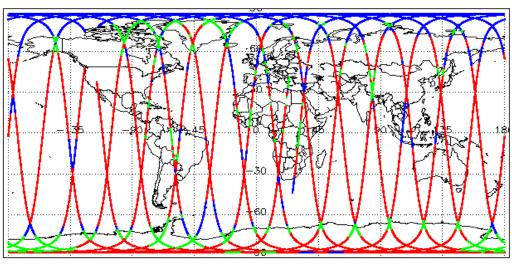
Mission / Instrument News		
10-Feb-2019	None	
10-Feb-2019 11-Feb-2019	None	

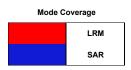
12-Feb-2019 Nothing planned

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

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:

0

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.

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:

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:

4.5 L1B Measurement Confidence Data Check

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

Attitude Correction Missing: This flag is currently set in error for IOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

Number of products with errors:

4.6 L1B Waveform Group Data Check

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

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

Number of products with errors:

16

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20190211T134352_20190211T140617_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190211T165442_20190211T170624_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190211T054909_20190211T055446_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190211T115103_20190211T115219_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190211T145648_20190211T150056_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T033232_20190211T033314_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T061850_20190211T062030_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T064445_20190211T064809_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T112746_20190211T112924_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T114128_20190211T114918_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T131820_20190211T133226_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T180908_20190211T181007_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T213518_20190211T214543_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T231327_20190211T232058_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T232122_20190211T232626_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190211T235220_20190211T235527_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:

5.2 L2 Product Header Analysis

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

Number of products with errors:

5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors: 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:

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.

Number of products with errors:

72

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190211T003354_20190211T004313_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T004349_20190211T005257_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOPM_2_20190211T005434_20190211T005952_C001 ld	ce Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	0 0 0	records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190211T021842_20190211T023204_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20190211T024452_20190211T031657_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T033509_20190211T034202_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T034216_20190211T040628_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T042028_20190211T042245_C001	ce Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T042430_20190211T044110_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T044113_20190211T045346_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T051520_20190211T051744_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T051916_20190211T053102_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T053721_20190211T054909_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T055446_20190211T055714_C001	ce Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T055741_20190211T060206_C001		The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T060345_20190211T061850_C001 O	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T062030_20190211T062657_C001 O	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190211T070040 20190211T070428 C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS OFFL SIR IOPM 2 20190211T070551 20190211T071142 C001	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ice Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	ocean Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
	ce Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190211T101623_20190211T103057_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20190211T103633_20190211T104841_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T105357_20190211T105947_C001		The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T110113_20190211T111914_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T112054_20190211T112746_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T115219_20190211T122725_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T123303_20190211T123818_C001	ce Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T123956_20190211T124302_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T124502_20190211T124817_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T131537_20190211T131820_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T133226_20190211T134106_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T134352_20190211T140617_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T141138_20190211T141304_C001	ce Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T141311_20190211T141720_C001		The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T141927_20190211T143227_C001 O	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T143415_20190211T144132_C001 O	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
	ce Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
		records. The Ice Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
	Ocean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190211T165442_20190211T170624_C001	Ocean Range Averaging Status	records.

CS_OFFL_SIR_IOPM_2_20190211T170828_20190211T172417_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T172600_20190211T173059_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T174011_20190211T174822_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T175701_20190211T180818_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T184752_20190211T190253_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T190518_20190211T191011_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T191629_20190211T195037_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T201814_20190211T204304_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T225229_20190211T231011_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190211T105947_20190211T110113_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190211T095801_20190211T095941_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190211T145417_20190211T145425_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190211T205500_20190211T205535_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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190211T003354_20190211T004313_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_20190211T004349_20190211T005257_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_20190211T005434_20190211T005952_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T010519_20190211T012804_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_20190211T013050_20190211T014014_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_20190211T015254_20190211T015622_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_20190211T021212_20190211T021655_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_20190211T021842_20190211T023204_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_20190211T024452_20190211T031657_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_20190211T033509_20190211T034202_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_20190211T034216_20190211T040628_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_20190211T042028_20190211T042245_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T042430_20190211T044110_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_20190211T044113_20190211T045346_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_20190211T051520_20190211T051744_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_20190211T051916_20190211T053102_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_20190211T053721_20190211T054909_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_20190211T055446_20190211T055714_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T055741_20190211T060206_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T060345_20190211T061850_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_20190211T062030_20190211T062657_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_20190211T070040_20190211T070428_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_20190211T070551_20190211T071142_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_20190211T071158_20190211T073002_C001	SWH Averaging Status, Ocean 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
CS_OFFL_SIR_IOPM_2_20190211T073229_20190211T074119_C001	Ice Backscatter Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20190211T074329_20190211T080549_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_20190211T084503_20190211T090917_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_20190211T091442_20190211T091909_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T092155_20190211T095553_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_20190211T101623_20190211T103057_C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T103633_20190211T104841_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. 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
CS_OFFL_SIR_IOPM_2_20190211T105357_20190211T105947_C001	Ice Backscatter Averaging Status SWH Averaging Status, Ocean	records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T110113_20190211T111914_C001	Backscatter Averaging Status	more records.
CS_OFFL_SIR_IOPM_2_20190211T112054_20190211T112746_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_20190211T115219_20190211T122725_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_20190211T123303_20190211T123818_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T124929_20190211T125651_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_20190211T131537_20190211T131820_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_20190211T133226_20190211T134106_C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS OFFL SIR IOPM 2 20190211T134352 20190211T140617 C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. 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
CS_OFFL_SIR_IOPM_2_20190211T141138_20190211T141304_C001	Ice Backscatter Averaging Status	records. The Ice Backscatter Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20190211T141311_20190211T141720_C001	Ice Backscatter Averaging Status SWH Averaging Status, Ocean	records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T141927_20190211T143227_C001	Backscatter Averaging Status	more records.
CS_OFFL_SIR_IOPM_2_20190211T143415_20190211T144132_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_20190211T144226_20190211T144648_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_20190211T151246_20190211T154505_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_20190211T154636_20190211T155202_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T155931_20190211T155957_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_20190211T160305_20190211T161535_C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS OFFL SIR IOPM 2 20190211T161554 20190211T163315 C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T170828_20190211T172417_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. 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
CS_OFFL_SIR_IOPM_2_20190211T172600_20190211T173059_C001	Ice Backscatter Averaging Status SWH Averaging Status, Ocean	records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T174011_20190211T174822_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T175701_20190211T180818_C001	Backscatter Averaging Status	more records.
CS_OFFL_SIR_IOPM_2_20190211T184752_20190211T190253_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_20190211T190518_20190211T191011_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T191629_20190211T195037_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_20190211T201814_20190211T204304_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20190211T201814_20190211T204304_C001 CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001	Backscatter Averaging Status	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
	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status	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
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean	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
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001	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	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001	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	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.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001	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	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.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flag has been set for one or more records. The SWH and Ocean Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001	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	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flags have been set for one or more records. The loe 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.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001 CS_OFFL_SIR_IOPM_2_20190211T225229_20190211T231011_C001	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 SWH Averaging Status, Ocean Backscatter Averaging Status	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001 CS_OFFL_SIR_IOPM_2_20190211T225229_20190211T231011_C001 CS_OFFL_SIR_IOPM_2_20190211T233539_20190211T233709_C001	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	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 Flags have been set for one or more records. The Ice Backscatter Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001 CS_OFFL_SIR_IOPM_2_20190211T225229_20190211T231011_C001 CS_OFFL_SIR_IOPM_2_20190211T235539_20190211T233709_C001 CS_OFFL_SIR_IOPM_2_20190211T105947_20190211T110113_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flags have been set for one or more records. The Ice Backscatter Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190211T204556_20190211T204926_C001 CS_OFFL_SIR_IOPM_2_20190211T204949_20190211T205317_C001 CS_OFFL_SIR_IOPM_2_20190211T205535_20190211T212300_C001 CS_OFFL_SIR_IOPM_2_20190211T215220_20190211T222211_C001 CS_OFFL_SIR_IOPM_2_20190211T222341_20190211T222840_C001 CS_OFFL_SIR_IOPM_2_20190211T223525_20190211T224653_C001 CS_OFFL_SIR_IOPM_2_20190211T225229_20190211T231011_C001 CS_OFFL_SIR_IOPM_2_20190211T233539_20190211T23709_C001 CS_OFFL_SIR_IOPM_2_20190211T095947_20190211T10113_C001 CS_OFFL_SIR_IOPN_2_20190211T095801_20190211T095941_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status SWH Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flag has been set for one or more records. The loe 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 loe Backscatter Averaging Status Flags have been set for one or more records. The loe Backscatter Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or more records.

5.8 L2 Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz 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.

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:

6.2 P2P Product Header Analysis

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

Number of products with errors:

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

6.4 P2P Auxiliary Correction Error Check

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

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:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220190211T000925_20190211T005902_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_20190211T005902_20190211T014839_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_220190211T014839_20190211T023816_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_220190211T023816_20190211T032752_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190211T032752_20190211T041729_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_220190211T041729_20190211T050706_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_220190211T050706_20190211T055643_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_220190211T055643_20190211T064619_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_220190211T064619_20190211T073556_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_220190211T073556_20190211T082533_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_220190211T082533_20190211T091510_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190211T091510_20190211T100446_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_220190211T100446_20190211T105424_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190211T105424_20190211T114400_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_220190211T114400_20190211T123337_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_220190211T123337_20190211T132314_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_220190211T132314_20190211T141251_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20190211T141251_20190211T150227_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_220190211T150227_20190211T155204_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_220190211T155204_20190211T164141_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_20190211T164141_20190211T173117_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_20190211T173117_20190211T182054_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_20190211T182054_20190211T191031_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_220190211T191031_20190211T200008_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_220190211T200008_20190211T204945_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220190211T204945_20190211T213921_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_220190211T213921_20190211T222858_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_220190211T222858_20190211T231835_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.
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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.

Number of products with errors:

28

Number of products with errors: 28	-	I
Product	Test Failed SWH Averaging Status, Ocean	Description
CS_OFFL_SIR_IOP_220190211T000925_20190211T005902_C001	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_220190211T005902_20190211T014839_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_220190211T014839_20190211T023816_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_220190211T023816_20190211T032752_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_220190211T032752_20190211T041729_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_220190211T041729_20190211T050706_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_220190211T050706_20190211T055643_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_220190211T055643_20190211T064619_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_220190211T064619_20190211T073556_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_220190211T073556_20190211T082533_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_220190211T082533_20190211T091510_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_220190211T091510_20190211T100446_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_220190211T100446_20190211T105424_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_220190211T105424_20190211T114400_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_220190211T114400_20190211T123337_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_220190211T123337_20190211T132314_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_220190211T132314_20190211T141251_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_220190211T141251_20190211T150227_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_220190211T150227_20190211T155204_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_220190211T155204_20190211T164141_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_220190211T164141_20190211T173117_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_220190211T173117_20190211T182054_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_220190211T182054_20190211T191031_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_220190211T191031_20190211T200008_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_220190211T200008_20190211T204945_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_220190211T204945_20190211T213921_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_220190211T213921_20190211T222858_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_220190211T222858_20190211T231835_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean 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.

lumber of products with errors:

Test Failed **Product** Description CS OFFL SIR IOP 2 20190211T000925 20190211T005902 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T005902 20190211T014839 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T014839 20190211T023816 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T023816_20190211T032752_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T032752 20190211T041729 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T041729 20190211T050706 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T050706_20190211T055643_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T055643 20190211T064619 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T064619_20190211T073556_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T082533_20190211T091510_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T091510 20190211T100446 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T100446 20190211T105424 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T105424_20190211T114400_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T114400 20190211T123337 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T123337_20190211T132314_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T132314_20190211T141251_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T141251_20190211T150227_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T150227_20190211T155204_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T155204_20190211T164141_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T164141_20190211T173117_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T173117 20190211T182054 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T182054_20190211T191031_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T191031_20190211T200008_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T200008_20190211T204945_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS OFFL SIR IOP 2 20190211T204945 20190211T213921 C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T213921_20190211T222858_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records. CS_OFFL_SIR_IOP_2__20190211T231835_20190212T000812_C001 Ocean Retracking Quality Flag The Ocean Retracking Quality Flag has been set for one or more records.