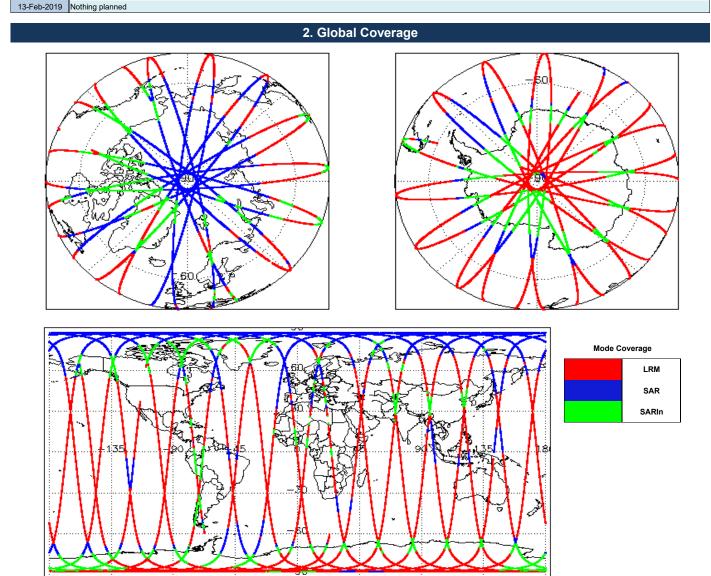


IDEAS+ Daily Report for GOP data:

<u>12/02/2019</u>

1. Overview				
Demont Draductions	14-Mar-2019	Check	L1 & L2	P2P
Report Production:	14-Mar-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Useu.	CryoSal Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Geophysical Ocean Products (GOP)	Product Format Check	Nominal	Nominal
Lib	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 and 5.5	See Section 6.5
		Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.
		Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

	Mission / Instrument News		
	11-Feb-2019	None	
11-Feb-2019 12-Feb-2019		None	



3. Instrument Configuration

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

SIRAL - A

0

SIRAL instrument(s) in use:

4. GOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

Number of products with errors:

4.2 L1B Product Header Analysis

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

ach product is checked for missing Data Set	Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.
Number of products with errors:	0
4.4 L1B Auxiliary Correction Er	ror Check
ryoSat L1B data includes a correction error fl	ag for each measurement record. The bit value of this flag indicates any problems when set.
Number of products with errors:	0
4.5 L1B Measurement Confiden	ice Data Check
ryoSat L1B data includes a measurement co	nfidence flag for each measurement record. The bit value of this flag indicates any problems when set.
Attitude Correction Missing: This flag is curr	ently set in error for GOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.
Number of products with errors:	2

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20190212T060759_20190212T061905_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_GOPM1B_20190212T103929_20190212T104004_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

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 some products over land, but this is to be expected.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM1B_20190212T092841_20190212T094007_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPM1B_20190212T174531_20190212T175556_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T010023_20190212T010106_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T041800_20190212T042255_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T055706_20190212T055815_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T061926_20190212T062536_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T063029_20190212T063455_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T073622_20190212T074217_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T091113_20190212T091142_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T100906_20190212T101030_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T105833_20190212T110240_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T154804_20190212T154912_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T172610_20190212T172827_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPN1B_20190212T190153_20190212T190705_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T045632_20190212T050139_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T060609_20190212T060759_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T074217_20190212T074435_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T121636_20190212T121723_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T141829_20190212T142000_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T171914_20190212T172610_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T183002_20190212T183055_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOPR1B_20190212T222220_20190212T222958_C001	Loss of Echo	The tracking echo is missing for one or more records

5. GOP 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:

5.4 L2 Auxiliary Correction Error Check

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

Number of products with errors:

0

0

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: 2 Product Test Failed Description CS_OFFL_SIR_GOPM_2_20190212T060759_20190212T061905_C001 Power scaling error There is an error in the scaling of the L2 waveform for one or more records CS_OFFL_SIR_GOPM_2_20190212T103929_20190212T104004_C001 Power scaling error There is an error in the scaling of the L2 waveform for one or more records

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. 78

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20190211T235527_20190212T000156_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T000339_20190212T000912_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T001440_20190212T004833_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T010215_20190212T010325_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T012137_20190212T014054_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T015323_20190212T022804_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T025244_20190212T025715_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T025800_20190212T031539_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T031843_20190212T031929_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T032514_20190212T032711_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T033401_20190212T035133_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T035613_20190212T040327_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T042317_20190212T044052_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T044226_20190212T045631_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T050418_20190212T050621_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T050724_20190212T051123_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T051302_20190212T052840_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T053041_20190212T054004_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T055815_20190212T055918_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T060759_20190212T061905_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T062536_20190212T063029_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T063455_20190212T063918_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T064221_20190212T065025_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T065214_20190212T070748_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T074435_20190212T081832_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T082337_20190212T082909_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T083135_20190212T085656_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T092841_20190212T094007_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T094544_20190212T095710_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T100308_20190212T100752_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T100816_20190212T100906_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T101030_20190212T103926_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T104730_20190212T104835_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T110240_20190212T113624_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T114217_20190212T114749_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T114916_20190212T115537_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T122641_20190212T122837_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T124159_20190212T131604_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T132120_20190212T132633_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOPM_2_20190212T132809_20190212T134815_C001 CS OFFL SIR GOPM 2 20190212T142000 20190212T145357 C001 CS_OFFL_SIR_GOPM_2_20190212T145702_20190212T150119_C001 CS_OFFL_SIR_GOPM_2_20190212T150728_20190212T154355_C001 CS OFFL SIR GOPM 2 20190212T154519 20190212T154804 C001 CS_OFFL_SIR_GOPM_2_20190212T160330_20190212T161056_C001 CS OFFL SIR GOPM 2 20190212T161658 20190212T163321 C001 CS OFFL SIR GOPM 2 20190212T163500 20190212T164018 C001 CS_OFFL_SIR_GOPM_2_20190212T164037_20190212T164234_C001 CS_OFFL_SIR_GOPM_2_20190212T165053_20190212T170357_C001 CS_OFFL_SIR_GOPM_2_20190212T170611_20190212T171800_C001 CS_OFFL_SIR_GOPM_2_20190212T174531_20190212T175556_C001 CS OFFL SIR GOPM 2 20190212T175736 20190212T181237 C001 CS_OFFL_SIR_GOPM_2_20190212T181425_20190212T181929_C001 CS_OFFL_SIR_GOPM_2_20190212T182801_20190212T182859_C001 CS OFFL SIR GOPM 2 20190212T183554 20190212T184005 C001 CS_OFFL_SIR_GOPM_2_20190212T184635_20190212T184949_C001 CS_OFFL_SIR_GOPM_2_20190212T185112_20190212T185821_C001 CS OFFL SIR GOPM 2 20190212T192957 20190212T195142 C001 CS_OFFL_SIR_GOPM_2_20190212T195440_20190212T195845_C001 CS_OFFL_SIR_GOPM_2_20190212T200453_20190212T203111_C001 CS OFFL SIR GOPM 2 20190212T210655 20190212T213117 C001 CS_OFFL_SIR_GOPM_2_20190212T213232_20190212T213759_C001 CS OFFL SIR GOPM 2 20190212T213805 20190212T214131 C001 CS OFFL SIR GOPM 2 20190212T214401 20190212T215600 C001 CS OFFL SIR GOPM 2 20190212T220137 20190212T221721 C001 CS_OFFL_SIR_GOPM_2_20190212T224114_20190212T230204_C001 CS_OFFL_SIR_GOPM_2_20190212T230422_20190212T231056_C001 CS_OFFL_SIR_GOPM_2_20190212T232305_20190212T235755_C001 CS OFFL SIR GOPN 2 20190212T014808 20190212T015120 C001 CS_OFFL_SIR_GOPN_2_20190212T041208_20190212T041230_C001 CS_OFFL_SIR_GOPN_2_20190212T050139_20190212T050418_C001 CS OFFL SIR GOPN 2 20190212T082307 20190212T082337 C001 CS_OFFL_SIR_GOPN_2_20190212T105833_20190212T110240_C001 CS OFFL SIR GOPN 2 20190212T174212 20190212T174531 C001 CS OFFL SIR GOPR 2 20190212T010118 20190212T010215 C001 CS OFFL SIR GOPR 2 20190212T113624 20190212T113847 C001 CS OFFL SIR GOPR 2 20190212T171914 20190212T172610 C001 CS OFFL SIR GOPR 2 20190212T232150 20190212T232305 C001

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

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Product	Test Failed	Description
		The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T000339_20190212T000912_C001	LICE Backscatter Averaging Status	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.
	00	The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_GOPM_2_20190212T012137_20190212T014054_C001 CS OFFL SIR GOPM 2 20190212T014259 20190212T014808 C001 CS_OFFL_SIR_GOPM_2_20190212T015323_20190212T022804_C001 CS_OFFL_SIR_GOPM_2_20190212T025244_20190212T025715_C001 CS OFFL SIR GOPM 2 20190212T025800 20190212T031539 C001 CS_OFFL_SIR_GOPM_2_20190212T031843_20190212T031929_C001 CS OFFL SIR GOPM 2 20190212T032514 20190212T032711 C001 CS OFFL SIR GOPM 2 20190212T033401 20190212T035133 C001 CS_OFFL_SIR_GOPM_2_20190212T035613_20190212T040327_C001 CS_OFFL_SIR_GOPM_2_20190212T042317_20190212T044052_C001 CS OFFL SIR GOPM 2 20190212T044226 20190212T045631 C001 CS_OFFL_SIR_GOPM_2_20190212T050418_20190212T050621_C001 CS OFFL SIR GOPM 2 20190212T050724 20190212T051123 C001 CS_OFFL_SIR_GOPM_2_20190212T051302_20190212T052840_C001 CS_OFFL_SIR_GOPM_2_20190212T053041_20190212T054004_C001 CS OFFL SIR GOPM 2 20190212T055815 20190212T055918 C001 CS OFFL SIR GOPM 2 20190212T060759 20190212T061905 C001 CS_OFFL_SIR_GOPM_2_20190212T062536_20190212T063029_C001 CS_OFFL_SIR_GOPM_2_20190212T063455_20190212T063918_C001 CS_OFFL_SIR_GOPM_2_20190212T064221_20190212T065025_C001 CS_OFFL_SIR_GOPM_2_20190212T065214_20190212T070748_C001 CS OFFL SIR GOPM 2 20190212T074435 20190212T081832 C001 CS_OFFL_SIR_GOPM_2_20190212T082337_20190212T082909_C001 CS OFFL SIR GOPM 2 20190212T083135 20190212T085656 C001 CS OFFL SIR GOPM 2 20190212T092841 20190212T094007 C001 CS OFFL SIR GOPM 2 20190212T094544 20190212T095710 C001 CS_OFFL_SIR_GOPM_2_20190212T100308_20190212T100752_C001 CS_OFFL_SIR_GOPM_2_20190212T101030_20190212T103926_C001 CS_OFFL_SIR_GOPM_2_20190212T104730_20190212T104835_C001 CS OFFL SIR GOPM 2 20190212T110240 20190212T113624 C001 CS_OFFL_SIR_GOPM_2_20190212T114217_20190212T114749_C001 CS_OFFL_SIR_GOPM_2_20190212T114916_20190212T115537_C001 CS OFFL SIR GOPM_2_20190212T122641_20190212T122837_C001 CS_OFFL_SIR_GOPM_2_20190212T124159_20190212T131604_C001 CS_OFFL_SIR_GOPM_2_20190212T132120_20190212T132633_C001 CS OFFL SIR GOPM 2 20190212T132809 20190212T134815 C001 CS_OFFL_SIR_GOPM_2_20190212T142000_20190212T145357_C001 CS_OFFL_SIR_GOPM_2_20190212T145702_20190212T150119_C001 CS OFFL SIR GOPM 2 20190212T150728 20190212T154355 C001 CS OFFL SIR GOPM 2 20190212T154519 20190212T154804 C001 CS_OFFL_SIR_GOPM_2_20190212T160330_20190212T161056_C001 CS OFFL SIR GOPM 2 20190212T161658 20190212T163321 C001 CS_OFFL_SIR_GOPM_2_20190212T163500_20190212T164018_C001 CS OFFL SIR GOPM 2 20190212T164037 20190212T164234 C001 CS_OFFL_SIR_GOPM_2_20190212T165053_20190212T170357_C001 CS_OFFL_SIR_GOPM_2_20190212T170611_20190212T171800_C001 CS OFFL SIR GOPM 2 20190212T174531 20190212T175556 C001 CS_OFFL_SIR_GOPM_2_20190212T175736_20190212T181237_C001 CS_OFFL_SIR_GOPM_2_20190212T181425_20190212T181929_C001 CS OFFL SIR GOPM 2 20190212T183554 20190212T184005 C001 CS_OFFL_SIR_GOPM_2_20190212T184635_20190212T184949_C001 SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice 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 SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status 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

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

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

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

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

CS_OFFL_SIR_GOPM_2_20190212T185112_20190212T185821_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T192957_20190212T195142_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T195440_20190212T195845_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T200453_20190212T203111_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T210655_20190212T213117_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T213232_20190212T213759_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T213805_20190212T214131_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T214401_20190212T215600_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T220137_20190212T221721_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T224114_20190212T230204_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T230422_20190212T231056_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T231232_20190212T232038_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPM_2_20190212T232305_20190212T235755_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T014808_20190212T015120_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T041208_20190212T041230_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T050139_20190212T050418_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T082307_20190212T082337_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T105833_20190212T110240_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPN_2_20190212T174212_20190212T174531_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPR_2_20190212T010118_20190212T010215_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPR_2_20190212T113624_20190212T113847_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPR_2_20190212T171914_20190212T172610_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOPR_2_20190212T232150_20190212T232305_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

5.8 L2 Ocean Retracking Quality Check

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: 62

6. GOP L2 Pole-to-Pole Data Quality Check

6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science	e 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

6.3 P2P Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct. Number of products with errors: 0

6.4 P2P Auxiliary Correction Error Check

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

2

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.

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20190212T055529_20190212T064506_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_2_20190212T100333_20190212T105310_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

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.

Product Test Failed Description CS_OFFL_SIR_GOP_2_201902117231835_201902127000812_C002 Cocan Range Averaging Status The Ocean and Ico Range Averaging Status The Ocean Range Averaging Status, Ico Range Averaging Status, Ice Range Averaging S	
CS_OFFL_SIR_GOP_2_201902127003742_01902127003746_201902127014726_0001 Ocean Range Averaging Status The Ocean and toe Range Averaging Status The Ocean Range Averaging Status	have been set for on
CS_OFFL_SIR_GOP_2_01902/12/10/24/20_001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_01902/12/01/2702/01/02/10/2703/02_001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_01902/12/00/2703/02_01902/12/03/260_001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_01902/12/03/260_001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_01902/12/04/065_001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_01902/12/05/52_01902/12/05/52_001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_01902/12/05/52_010/02/52/50/52/50/52/50/52/50/52/50/52/50/52/50/52/50/52/50/52/50/5	set for one or more
CS_OFFL_SIR_GOP_2_01902/12103/02_001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_01902/121023039_001 Ocean Range Averaging Status The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/12103039_0192121041615_001 Ocean Range Averaging Status. The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/121030552_01902/121055529_001 Cean Range Averaging Status. The Ocean and Ice Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/121055529_01902/121055529_001 Cean Range Averaging Status. The Ocean and Ice Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/121055529_01902/121055529_01902/121054506_001 Cean Range Averaging Status. The Ocean and Ice Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/121054506_001 Cean Range Averaging Status. The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/12103443_01902/12103443_0010 Cean Range Averaging Status. The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/12100333_0101 Cean Range Averaging Status. The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/12110333_0101 Cean Range Averaging Status. The Ocean Range Averaging Status Flags Lords. CS_OFFL_SIR_GOP_2_01902/121103310_011 Cean Range Averaging Status. The Ocean Ran	have been set for on
CS_UPFL_SIR_GOP_2_019021210221022099_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_0190212T032639_C001 Ocean Range Averaging Status The Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_0190212T041615_20190212T056529_C001 Ocean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T065529_C0101 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T065529_C010212T065529_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T064506_20190212T073443_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T064506_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T064506_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T064260_C0190212T00333_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T103310_C001 Coean Range Averaging Status, lee The Ocean and lee Range Averaging Status, lee CS_OFFL_SIR_GOP_2_0190212T1420310_20190212T114247_C001 Ocean Range Av	set for one or more
CS_OFFL_SIR_GOP_2_20190212T041615_20190212T055529_C001 Ocean Range Averaging Status, lee Range A	set for one or more
S_UFFL_SIR_GOP_2_20190212T06552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T05552_20190212T054506_C001 The Ocean and Loe Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ice The Ocean and Loe Range Averaging Status Ice Range Averaging Status Ice CS_OFFL_SIR_GOP_2_20190212T064506_20190212T073443_C001 Coean Range Averaging Status Ice Range Averaging Status Ice The Ocean and Loe Range Averaging Status Ice Range Averaging Status Ice CS_OFFL_SIR_GOP_2_20190212T064506_20190212T073443_C001 Coean Range Averaging Status Ice Range Averaging Status The Ocean and Loe Range Averaging Status Ice Range Averaging Status Ice CS_OFFL_SIR_GOP_2_20190212T082420_C001 Coean Range Averaging Status Ice Range Averaging Status The Ocean and Loe Range Averaging Status Ice records. CS_OFFL_SIR_GOP_2_20190212T082420_20190212T100333_C001 Ocean Range Averaging Status Ice Range Averaging Status The Ocean Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T10333_20190212T105310_C001 Ocean Range Averaging Status The Ocean Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T102132_20190212T14247_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Ice Range Averaging Status The Ocean Range Averaging Status Ice Range Averaging Status The Ocean Range Averaging Status Ice Range Averaging Status The Ocean Range Averaging Status The Ocean Range Averaging Status Ice Range	set for one or more
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CS_OFFL_SIR_GOP_2_201902121094306_20190212109443_C001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T091356_C001 Cean Range Averaging Status The Ocean and Ice Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T091356_C0190212T1091356_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T091356_20190212T100333_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T100333_20190212T105310_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T105310_20190212T14247_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T142201_C0190212T132201_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T15050_C001 Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. <td>have been set for on</td>	have been set for on
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CS_OFFL_SIR_GOP_2_20190212T109335_20190212T100333_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_20190212T100333_20190212T1105310_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status CS_OFFL_SIR_GOP_2_20190212T105310_20190212T114247_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status CS_OFFL_SIR_GOP_2_20190212T1123223_20190212T123223_C001 Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T123223_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T141137_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T150114_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T15050_C001 Ocean Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T150505_020190212T164027_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T164027_C001 Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records.	have been set for on
CS_OFFL_SIR_GOP_2_20190212T100333_20190212T105310_201901 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T105310_20190212T114247_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T114247_20190212T132203_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T141137_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T160114_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T150505_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150104_20190212T164027_C001 Ocean Range Averaging Status, Ice Ra	set for one or more
CS_OFFL_SIR_GOP_2_20190212T1103310_20190212T114247_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_20190212T123223_20190212T123223_201001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T123223_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T141137_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T150114_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T150505_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T15050_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or	have been set for on
SS_OFFL_SIR_GOP_2_201902121112222_20190212112322_0001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T123223_20190212T132201_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T141137_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T150114_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T155050_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T155050_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_20190212T181941_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T181941_C001 Ocean	set for one or more
CS_OFFL_SIR_GOP_2_20190212T123223_20190212T132201_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_20190212T132201_20190212T141137_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T150114_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T155050_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T155050_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T181941_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. <tr< td=""><td>have been set for on</td></tr<>	have been set for on
CS_OFFL_SIR_GOP_2_201902121132201_201902121141137_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_20190212T141137_20190212T150114_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T155050_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T155050_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T181941_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_201902	set for one or more
SS_OFFL_SIR_GOP_2_20190212T14T137_20190212T150114_C001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T150114_20190212T155050_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T155050_20190212T164027_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T164027_20190212T164027_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T173004_20190212T173004_C001 Ocean Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001 Ocean Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001 Ocean Range Averaging Status The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags I CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status	set for one or more
SS_OFFL_SIR_GOP_2_201902121150114_201902121155050_C001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T155050_20190212T164027_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T164027_20190212T173004_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001 Ocean Range Averaging Status The Ocean Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean and Ice Range Averaging Status Flags I or more records. CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status, Ice Range Averaging Status, Ice Range Averaging Status The Ocean Range Averaging Status Flags I or more records.	have been set for on
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CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001 Range Averaging Status or more records. CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001 Ocean Range Averaging Status The Ocean Range Averaging Status CS_OFFL_SIR_GOP_2_20190212T180917_20190212T195855_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flag has been records. CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flag has been records.	have been set for on
CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status records. CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001 Ocean Range Averaging Status loe Range Averaging Status records. The Ocean and Ice Range Averaging Status records. The Ocean Range Averaging Status records.	have been set for on
CS_OFFL_SIR_GOP_2_201902121190917_201902121195855_C001 Range Averaging Status or more records.	set for one or more
The Ocean Range Averaging Status Flag has been	have been set for on
CS_OFFL_SIR_GOP_2_20190212T195855_20190212T204831_C001 Ocean Range Averaging Status records.	set for one or more
CS_OFFL_SIR_GOP_2_20190212T204831_20190212T213808_C001 Ocean Range Averaging Status, Ice Range Averaging Status Flags I or more records.	have been set for on
CS_OFFL_SIR_GOP_2_20190212T213808_20190212T222745_C001 Ocean Range Averaging Status lce Range Averaging Status or more records.	have been set for on
CS_OFFL_SIR_GOP_2_20190212T222745_20190212T231722_C001 Ocean Range Averaging Status, Ice Range Averaging Status or more records.	have been set for on
CS_OFFL_SIR_GOP_2_20190212T231722_20190213T000658_C001 Ocean Range Averaging Status, Ice Range Averaging Status flags or more records.	have been set for on

6.7 P2P SWH and Backscatter Measurement Check

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

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

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220190211T231835_20190212T000812_C002	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS OFFE SIR GOP 2 201902121000812 201902121005748 C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T005748_20190212T014726_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.
	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T023702_20190212T032639_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_GOP_2_20190212T032639_20190212T041615_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T041615_20190212T050552_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T050552_20190212T0555529_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T055529_20190212T064506_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T064506_20190212T073443_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T073443_20190212T082420_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T082420_20190212T091356_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T091356_20190212T100333_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T100333_20190212T105310_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T105310_20190212T114247_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T114247_20190212T123223_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T123223_20190212T132201_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T132201_20190212T141137_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T141137_20190212T150114_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T150114_20190212T155050_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T155050_20190212T164027_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T164027_20190212T173004_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T173004_20190212T181941_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T181941_20190212T190917_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T190917_20190212T195855_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T195855_20190212T204831_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T204831_20190212T213808_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T213808_20190212T222745_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T222745_20190212T231722_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_GOP_220190212T231722_20190213T000658_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

6.8 P2P Ocean Retracking Quality Check

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

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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.

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220190212T000812_20190212T005748_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T005748_20190212T014726_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T014726_20190212T023702_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T023702_20190212T032639_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T032639_20190212T041615_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T041615_20190212T050552_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T050552_20190212T055529_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T055529_20190212T064506_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T064506_20190212T073443_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20190212T073443_20190212T082420_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.

CS_OFFL_SIR_GOP_220190212T082420_20190212T091356_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T091356_20190212T100333_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T100333_20190212T105310_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T105310_20190212T114247_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T114247_20190212T123223_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T123223_20190212T132201_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T132201_20190212T141137_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T141137_20190212T150114_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T150114_20190212T155050_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T155050_20190212T164027_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T164027_20190212T173004_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T173004_20190212T181941_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T181941_20190212T190917_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T190917_20190212T195855_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T195855_20190212T204831_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T204831_20190212T213808_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T213808_20190212T222745_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T222745_20190212T231722_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220190212T231722_20190213T000658_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
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