

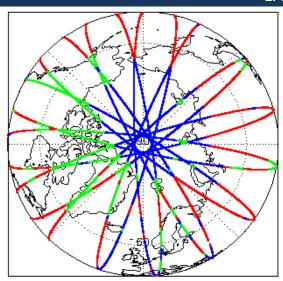
1. Overview

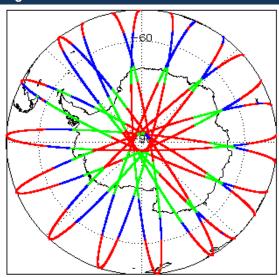
Report Production Date:	03-Nov-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1B and L2 OFFLINE Data

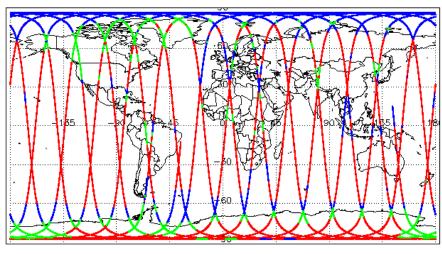
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Star Tracker Usage Check	Nominal
L1B Tracking Flag Check	See Section 4.4
L1B Calibration Usage Check	Nominal
L1B & L2 Auxiliary Data File Usage Check	Nominal
L1B & L2 Auxiliary Correction Error Check	Nominal
L1B & L2 Measurement Confidence Data Check	See Section 4.8 and 5.5
QCC Errors/ Warnings	See Section 6.1, 6.2 and 6.3

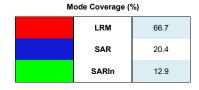
Mission / Instrument News				
01-Sep-2020	None			
02-Sep-2020	None			
03-Sep-2020	Nothing planned			

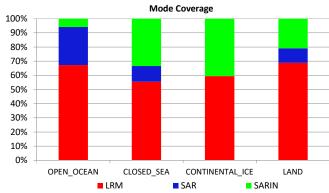
2. Global Coverage

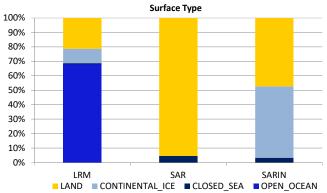












3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

4. 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 product file (.DBL).

Number of products with errors:

4.2 L1B Product Header Analysis

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

Number of products with errors:

0

4.3 Star Tracker Usage Check

Each product is checked in order to ensure a valid star tracker file has been used in processing.

Number of products with errors:

0

4.4 L1B Tracking Flags Check

CryoSat L1B data includes a tracking 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.

Number of products with errors:

07

	one of only	
CS OFFL SIR LRM 1B 20200902T003210 20200902T004347 D001	oss of echo	The tracking echo is missing for one or more records
	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T004536_20200902T005627_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T005907_20200902T010521_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T011812_20200902T013429_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T013721_20200902T013856_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T013909_20200902T013955_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T014000_20200902T014614_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T015800_20200902T020043_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T023102_20200902T024521_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T025704_20200902T025921_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T030044_20200902T030635_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T030919_20200902T031158_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T031202_20200902T033203_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T033556_20200902T034436_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T034754_20200902T041155_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T041628_20200902T042044_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T043540_20200902T043630_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T043753_20200902T044137_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T044139_20200902T044144_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T044146_20200902T044307_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T044355_20200902T044705_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T044707_20200902T051133_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T052723_20200902T055148_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T055151_20200902T055330_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T055332_20200902T055550_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T055623_20200902T060513_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T071443_20200902T072137_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T072332_20200902T072828_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T073250_20200902T073344_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T073518_20200902T073837_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T084722_20200902T090250_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T090429_20200902T091201_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T091357_20200902T091510_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T094725_20200902T100321_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T100324_20200902T100821_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T111209_20200902T111527_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T111530_20200902T112006_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T113105_20200902T114100_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T114102_20200902T114739_D001	oss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T115551_20200902T115811_D001	oss of echo	The tracking echo is missing for one or more records

CS_OFFL_SIR_LRM_1B_20200902T120637_20200902T121903_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T125053_20200902T125332_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T125334_20200902T125421_D001	Loss of echo	The tracking echo is missing for one or more records
CS OFFL SIR LRM 1B 20200902T125426 20200902T125645 D001	Loss of echo	The tracking echo is missing for one or more records
CS OFFL SIR LRM 1B 20200902T131206 20200902T132643 D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T134404_20200902T135401_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T135403_20200902T135551_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T140031_20200902T141327_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T141450_20200902T141704_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T142941_20200902T143353_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T143451_20200902T143453_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T143455_20200902T144311_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T151424_20200902T151538_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T152133_20200902T154703_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T154837_20200902T154857_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T154920_20200902T155447_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T160826_20200902T161450_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T161452_20200902T161528_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T161531_20200902T161548_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T162044_20200902T164115_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T174907_20200902T175712_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T175714_20200902T175716_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T175719_20200902T175921_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T175923_20200902T182355_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T183222_20200902T183551_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T192514_20200902T192932_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T193018_20200902T193238_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T193311_20200902T193358_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T193544_20200902T193602_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T193604_20200902T193652_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T193934_20200902T194808_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T194849_20200902T194946_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T194948_20200902T195618_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T200720_20200902T201246_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T204332_20200902T205454_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T210936_20200902T210939_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T211156_20200902T211217_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T211306_20200902T211314_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T211607_20200902T212202_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T214644_20200902T215145_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T215850_20200902T223437_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T232858_20200902T233050_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T233836_20200902T234946_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T234949_20200902T235314_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T235316_20200902T235327_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200902T235329_20200902T235510_D001	Loss of echo	The tracking echo is missing for one or more records

4.5 L1B Calibration Usage Check

Each product is checked in order to ensure that the necessary calibration files have been used in processing.

Number of products with errors:

4.6 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:

4.7 L1B Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag (field 54) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

4.8 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 18) for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are several common error flags raised in the Level 1B products which are expected due to operational mode or surface type. All common flags are summarised in the list below, followed by a table of any additional issues arising from this test.

Block Degraded Flag: This flag is currently set for a number of individual records generally at the start or end of products (all modes), but this is to be expected.

Phase Perturbation Flag: This flag is currently set for all L1B SARIn products, indicating that the ADC correction application is deactivated, but this is in line with the current configuration.

Number of products with errors:

2

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20200902T023102_20200902T024521_D001		The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_LRM_1B_20200902T073518_20200902T073837_D001	IECHO ERROR IRK ECHO ERROR	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo

5. 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 product file (.DBL).

Number of products with errors:

5.2 L2 Product Header Analysis

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

Number of products with errors:

5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

CryoSat L2 data includes a correction error flag (field 30) for each measurement record. The bit value of this flag indicates any problems when set.

0

Number of products with errors:

5.5 L2 Measurement Quality Flag Check

CryoSat L2 data includes a quality flag (field 50) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Currently, there are several common error flags raised in the Level 2 products which are expected due to operational mode or surface type. All common flags are summarised in the list below, followed by a table of any additional issues arising from this test.

Freeboard error: This flag is correctly set in all L2 SAR products that are not discriminated as sea-ice, and for which freeboard cannot be calculated.

Height and Backscatter errors: These flags are currently set for products over land, but this is to be expected. Retracker 1 Height and Backscatter error flags are also set for products over sea-ice, but this is to be expected.

Peakiness error: This flag is currently set for products over sea-ice, but this is to be expected.

SARIn X-Track Angle Error: This flag is set when the difference between the computed surface elevation and the DEM is >50 m. The DEM is only available over Greenland and Antarctica and as a result this flag is set for L2 SARIn products in all other locations as expected.

SSHA interpolation error: This flag is currently set for a number of SAR products occurring at surface type boundaries, but this is to be expected.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_220200901T233731_20200902T000952_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T003210_20200902T004347_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T004536_20200902T005627_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T011812_20200902T013429_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T022353_20200902T022636_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T023102_20200902T024521_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T025704_20200902T025921_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T030044_20200902T030635_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T030919_20200902T031158_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T031202_20200902T033203_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T034754_20200902T041155_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T042208_20200902T042249_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records

CS_OFFL_SIR_LRM_220200902T044707_20200902T051133_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T052723_20200902T055148_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T055623_20200902T060513_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T061915_20200902T064922_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T071443_20200902T072137_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T074216_20200902T074408_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T075602_20200902T082915_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T084722_20200902T090250_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T093317_20200902T094439_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2), Surface model unavailable	There is a height and backscatter error for Retracker 2, a height error for Retracker 3 and no DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T094725_20200902T100321_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T100324_20200902T100821_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T102549_20200902T104500_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T104538_20200902T105014_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T105114_20200902T105944_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T111209_20200902T111527_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T111530_20200902T112006_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T112010_20200902T113052_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T113105_20200902T114100_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T114102_20200902T114739_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T120637_20200902T121903_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T122007_20200902T123701_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T130027_20200902T131003_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T131206_20200902T132643_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T134404_20200902T135401_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T140031_20200902T141327_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T141450_20200902T141704_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2), Surface model unavailable	There is a height and backscatter error for Retracker 2 , a height error for Retracker 3 and no DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T143455_20200902T144311_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T145128_20200902T150531_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records

CS_OFFL_SIR_LRM_220200902T152133_20200902T154703_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T155611_20200902T155703_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T162044_20200902T164115_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T170016_20200902T172719_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T174907_20200902T175712_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T175923_20200902T182355_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2), Surface model unavailable	There is a height and backscatter error for Retracker 2 and no DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T184031_20200902T191351_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2), Surface model unavailable	There is a height and backscatter error for Retracker 2 and no DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T192514_20200902T192932_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T201951_20200902T204136_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T204332_20200902T205454_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2), Surface model unavailable	There is a height and backscatter error for Retracker 2 and no DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200902T210510_20200902T210802_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T212450_20200902T214130_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T215850_20200902T223437_D001	Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200902T225626_20200902T231923_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T233836_20200902T234946_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T234949_20200902T235314_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220200902T235329_20200902T235510_D001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records

6. QCC Report Analysis

The Quality Control for CryoSat (QCC) facility performs a primary survey of data products immediately after production by the PDS and LTA processing facilities. A list of the tests which raised errors or warnings is provided below.

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_LRM_1B	148	147	147	0	0
SIR_SAR_1B	107	106	106	0	0
SIR_SIN_1B	100	99	99	0	0
SIR_LRM_2	148	147	142	5	0
SIR_SAR_2	100	106	106	0	0
SIR_SIN_2	107	99	99	0	0
SIR_GDR_2	15	15	0	0	15

6.1 QCC Errors

Number of products with QCC errors:

15

Product Type	MPHDUTNCDF	MPHXPFNCDF	MPHXVFNCDF	MPHYPFNCDF	MPHYVFNCDF	MPHZPFNCDF	MPHZVFNCDF	STRUCTURESIZ EANDREAD		•
SIR_GDR_2_	15	15	15	15	15	15	15	15		

Test Description Key:				
Abbreviation	Test name	Details		
MPHDUTNCDF	MPH_Delta_UT1_NetCDF	Delta_UT1 mismatch		
MPHXPFNCDF	MPH_X_Position_Float_v2_NetCDF	X_Position mismatch (DBL float (GDR), rounded to 100)		
MPHXVFNCDF	MPH_X_Velocity_Float_v2_NetCDF	X_Velocity mismatch (DBL float (GDR), rounded to 1)		
MPHYPFNCDF	MPH_Y_Position_Float_v2_NetCDF	Y_Position mismatch (DBL float (GDR), rounded to 100)		
MPHYVFNCDF	MPH_Y_Velocity_Float_v2_NetCDF	Y_Velocity mismatch (DBL float (GDR), rounded to 1)		
MPHZPFNCDF	MPH_Z_Position_Float_v2_NetCDF	Z_Position mismatch (DBL float (GDR), rounded to 100)		
MPHZVFNCDF	MPH_Z_Velocity_Float_v2_NetCDF	Z_Velocity mismatch (DBL float (GDR), rounded to 1)		
STRUCTURESIZEANDF	STRUCTURE_SIZE_AND_READ	Under investigation.		

6.2 QCC Warnings

Product Type	AXSMMEOCI	•	-	•	-	-	-
SIR_LRM_2_	5						
Test Description Key:							
Abbreviation	Test name			Details			
AXSMMEOCI	AttributeXrefSlopeModelMustExistOverContinentalIce			The xref_slope_model is mandatory in LRM products over continental ice			

6.2 Missing QCC Reports

Number of products with missing QCC reports:

0