

1. Overview

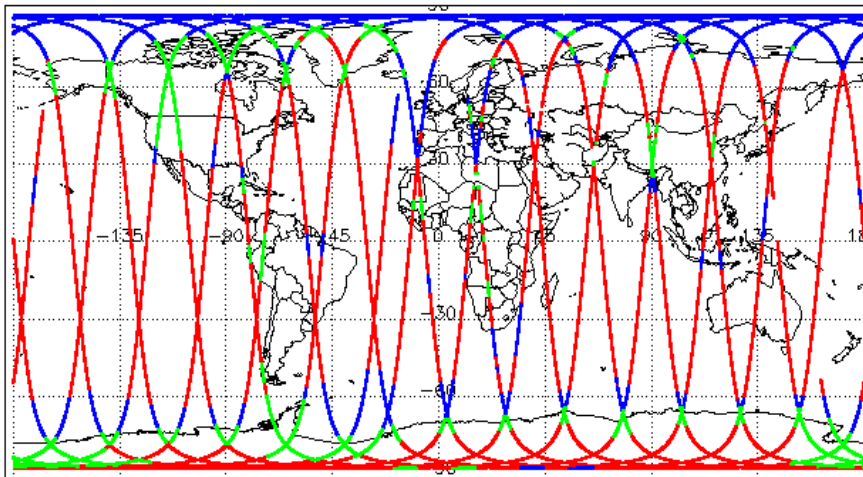
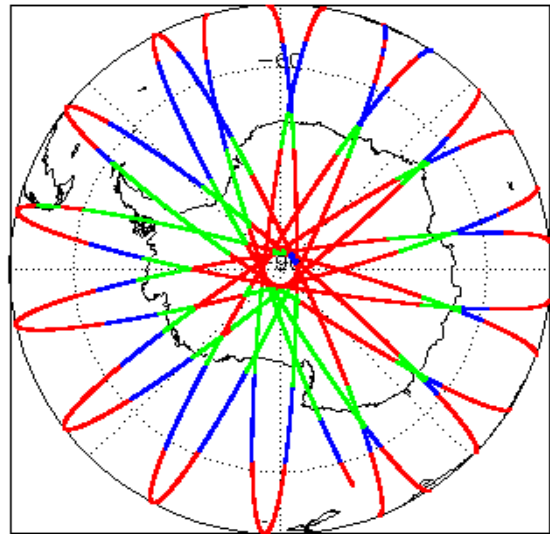
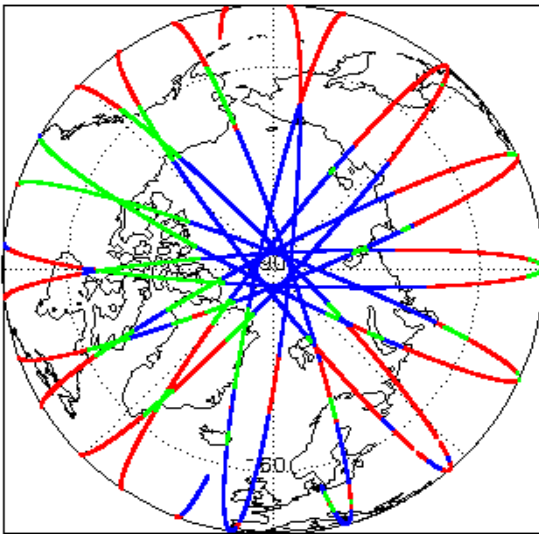
Report Production Date:	14-Sep-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1B and L2 OFFLINE Data

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

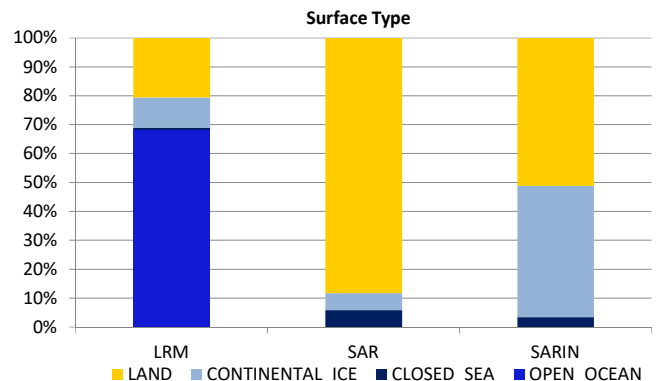
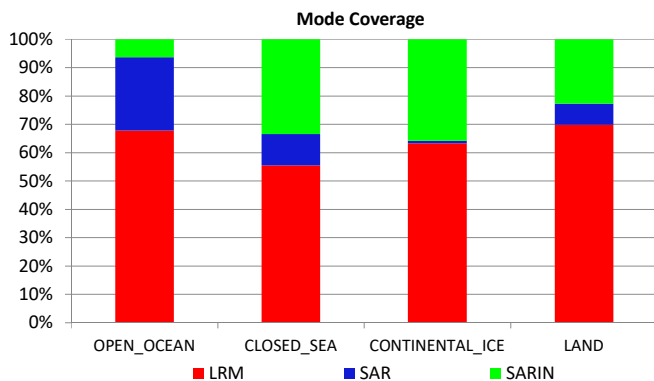
Mission / Instrument News

12-Aug-2020	None
13-Aug-2020	Unavailability 09:36:10 to 09:56:38
14-Aug-2020	Nothing planned

2. Global Coverage



Mode Coverage (%)		
	LRM	67.7
	SAR	19.3
	SARIn	13.0



3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A
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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: 0

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: 91

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20200813T003831_20200813T004023_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T004812_20200813T010445_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T010926_20200813T011726_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T011729_20200813T011809_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T011815_20200813T012021_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T012023_20200813T012026_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T012028_20200813T012341_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T015541_20200813T020959_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T021724_20200813T021936_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T022703_20200813T024115_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T024254_20200813T030328_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T031647_20200813T033037_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T033042_20200813T033043_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T033051_20200813T033126_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T033128_20200813T033216_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T033735_20200813T035058_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T035517_20200813T040341_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T042949_20200813T043017_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T043405_20200813T043440_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T043543_20200813T044226_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T045436_20200813T045451_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T045519_20200813T050222_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T050443_20200813T050803_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T050805_20200813T053040_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T053705_20200813T054158_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T054751_20200813T061042_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T061232_20200813T062142_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T072539_20200813T075229_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T075231_20200813T075251_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T075450_20200813T075606_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T075640_20200813T075827_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T075913_20200813T080329_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T091141_20200813T091513_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T091635_20200813T092110_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T092135_20200813T092310_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T092455_20200813T092640_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T092823_20200813T092931_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T093333_20200813T093337_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T093409_20200813T093414_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T093427_20200813T093448_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T105644_20200813T110244_D001	Loss of echo	The tracking echo is missing for one or more records

CS_OFFL_SIR_LRM_1B_20200813T110448_20200813T110917_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T113117_20200813T120621_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T130935_20200813T132418_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T132843_20200813T132951_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T132955_20200813T132955_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T132959_20200813T134552_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T140327_20200813T141719_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T141932_20200813T143538_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T144836_20200813T145657_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T145902_20200813T150920_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T155733_20200813T160311_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T160554_20200813T161522_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T161553_20200813T161604_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T162659_20200813T163320_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163322_20200813T163330_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163332_20200813T163350_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163352_20200813T163422_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163426_20200813T163432_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163435_20200813T163438_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163440_20200813T163445_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163448_20200813T163506_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T163544_20200813T163628_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T171929_20200813T174532_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T174535_20200813T174707_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T175009_20200813T175012_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T181009_20200813T181107_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T181110_20200813T181536_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T181538_20200813T181608_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T181611_20200813T181617_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T181829_20200813T184243_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T194427_20200813T195134_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T195208_20200813T195357_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T195359_20200813T195410_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T195436_20200813T195442_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T195445_20200813T200416_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T200419_20200813T200502_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T200505_20200813T200648_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T200650_20200813T200759_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T200801_20200813T201240_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T212627_20200813T212650_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T213019_20200813T213157_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T213208_20200813T213319_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T213641_20200813T213750_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T214301_20200813T214848_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T224028_20200813T225321_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T231235_20200813T231409_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T231523_20200813T231558_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T231603_20200813T231614_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T231618_20200813T232005_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200813T232052_20200813T233950_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: 0

4.6 L1B 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

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: 0

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: 1

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20200813T031647_20200813T033037_D001	Echo error, TRK 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: 0

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: 0

5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors: 0

5.4 L2 Auxiliary Correction Error Check

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.

Number of products with errors: 0

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: 59

Product	Test Failed	Description
CS_OFFL_SIR_LRM_2_20200813T000430_20200813T002855_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_2_20200813T004812_20200813T010445_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_2_20200813T010926_20200813T011726_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_2_20200813T011815_20200813T012021_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_2_20200813T013714_20200813T015326_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_2_20200813T015541_20200813T020959_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_2_20200813T022703_20200813T024115_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_2_20200813T024254_20200813T030328_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_2_20200813T031647_20200813T033037_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_2_20200813T033128_20200813T033216_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_2_20200813T033735_20200813T035058_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_2_20200813T155733_20200813T160311_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_2_20200813T160554_20200813T161522_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_2_20200813T161553_20200813T161604_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_2_20200813T164159_20200813T170251_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_2_20200813T171929_20200813T174532_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_2_20200813T180818_20200813T180849_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_2_20200813T181829_20200813T184243_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_2_20200813T185849_20200813T193151_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_2_20200813T194427_20200813T195134_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_2_20200813T195359_20200813T195410_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_2_20200813T195445_20200813T200416_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_2_20200813T200801_20200813T201240_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_2_20200813T203946_20200813T211132_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_2_20200813T212323_20200813T212352_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_2_20200813T212403_20200813T212538_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_2_20200813T214301_20200813T214848_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_2_20200813T221753_20200813T223903_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_2_20200813T224028_20200813T225321_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_2_20200813T231523_20200813T231558_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_2_20200813T232052_20200813T233950_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	155	155	155	0	0
SIR_SAR_1B	92	92	92	0	0
SIR_SIN_1B	96	96	96	0	0
SIR_LRM_2	155	155	146	9	0
SIR_SAR_2	96	92	92	0	0
SIR_SIN_2	96	96	94	2	0
SIR_GDR_2	14	14	0	0	14

6.1 QCC Errors

Number of products with QCC errors: 14

Product Type	MPHDUTCDF	MPHXFNCDF	MPHXVFCDF	MPHYFNCDF	MPHYVFCDF	MPHZFNCDF	MPHZVFCDF	STRUCTURESIZ EANDREAD	-	-	-
SIR_GDR_2_	14	14	14	14	14	14	14	14			

Test Description Key:

Abbreviation	Test name	Details
MPHDUTCDF	MPH_Delta_UT1_NetCDF	Delta_UT1 mismatch
MPHXFNCDF	MPH_X_Position_Float_v2_NetCDF	X_Position mismatch (DBL float (GDR), rounded to 100)
MPHXVFCDF	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)
STRUCTURESIZEANDR	STRUCTURE_SIZE_AND_READ	Under investigation.

6.2 QCC Warnings

Number of QCC reports with warnings: 11

Total number of occurrences of each warning

Product Type	AXDME	AXSMMEOCI	-	-	-	-	-
SIR_LRM_2_	0	9					
SIR_SIN_2_	2	0					

Test Description Key:

Abbreviation	Test name	Details
AXDME	AttributeXrefDemMustExist	The xref_dem attribute is mandatory in SIN products over continental ice
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