

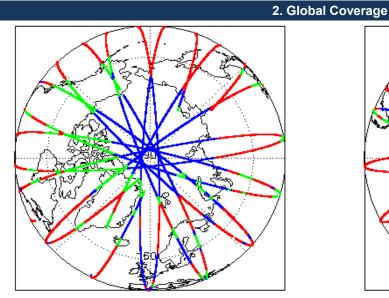
QA4EO Daily Report for OFFLINE data:

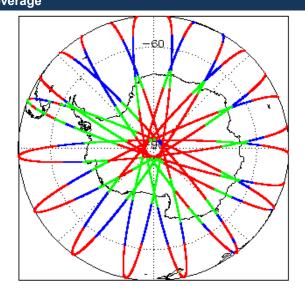
<u>09/10/2020</u>

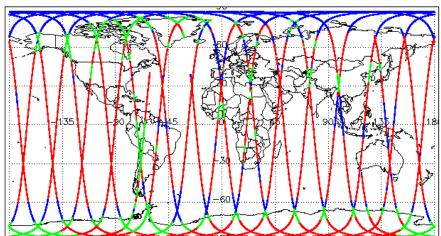
1. Overview

Demant Draduction Dates	06 Nev 2020	Check	Status		
Report Production Date:	06-Nov-2020	Server check: science-pds.cryosat.esa.int	Nominal		
Processor Used:	Cruces at los Prosposor	Server check: calval-pds.cryosat.esa.int	Nominal		
Flocessor Useu.	CryoSat Ice Processor	Product Software Check	Nominal		
Data Used:	L1B and L2 OFFLINE Data	Product Format Check	Nominal		
Data Useu.	LID and LZ OFFLINE Data	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		

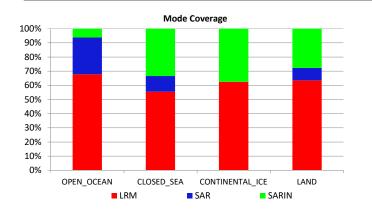
Mission / Instru	ument News
08-Oct-2020	None
09-Oct-2020	None
10-Oct-2020	Nothing planned

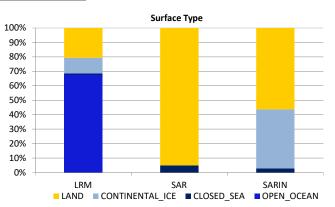












3. Instrument Configuration

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

SIRAL - A

SIRAL instrument(s) in use:

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:

4.3 Star Tracker Usage Check

Each product is checked in order to ensure a valid star tracker file has been used in processing. 0

Number of products with errors:

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.

107

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20201008T235155_20201009T000941_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T001544_20201009T001614_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T002210_20201009T002213_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T002215_20201009T002352_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T003247_20201009T004037_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T010618_20201009T010720_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011109_20201009T011233_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011236_20201009T011240_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011245_20201009T011250_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011252_20201009T011310_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011312_20201009T011346_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011348_20201009T011413_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T011417_20201009T012025_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T013225_20201009T013439_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T013602_20201009T020734_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T021112_20201009T021325_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T021341_20201009T021929_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T022346_20201009T024740_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T025121_20201009T025607_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T025624_20201009T025740_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T031307_20201009T031621_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T031902_20201009T031936_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T031940_20201009T034629_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T040252_20201009T042957_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T043002_20201009T043009_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T043013_20201009T043038_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T043113_20201009T043305_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T043338_20201009T043619_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T054946_20201009T055512_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T055639_20201009T060336_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T060914_20201009T060959_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T061018_20201009T061144_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T061145_20201009T061255_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T074151_20201009T074654_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T074732_20201009T074901_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T080809_20201009T083246_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T084909_20201009T085139_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T085156_20201009T085556_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T094653_20201009T094748_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T094750_20201009T094830_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20201009T094832_20201009T100119_D001	Loss of echo	The tracking echo is missing for one or more records

CS OFFL SIR LRM 1B 20201009T100600 20201009T101857 D001 CS OFFL SIR LRM 1B 20201009T104141 20201009T105412 D001 CS OFFL SIR LRM 1B 20201009T105415 20201009T105416 D001 CS_OFFL_SIR_LRM_1B_20201009T112610_20201009T112715_D001 CS OFFL SIR LRM 1B 20201009T112721 20201009T112722 D001 CS_OFFL_SIR_LRM_1B_20201009T112724_20201009T113205_D001 CS OFFL SIR LRM 1B 20201009T113552 20201009T114523 D001 CS OFFL SIR LRM 1B 20201009T114758 20201009T120135 D001 CS_OFFL_SIR_LRM_1B_20201009T122238 20201009T122549 D001 CS OFFL SIR LRM 1B 20201009T123545 20201009T123626 D001 CS OFFL SIR LRM 1B 20201009T123629 20201009T123652 D001 CS OFFL SIR LRM 1B 20201009T123654 20201009T123656 D001 CS_OFFL_SIR_LRM_1B_20201009T123700_20201009T123703_D001 CS_OFFL_SIR_LRM_1B_20201009T123706_20201009T123733_D001 CS OFFL SIR LRM 1B 20201009T123740 20201009T123741 D001 CS_OFFL_SIR_LRM_1B_20201009T123744_20201009T124009_D001 CS_OFFL_SIR_LRM_1B_20201009T124538_20201009T124844_D001 CS_OFFL_SIR_LRM_1B_20201009T130442_20201009T131143_D001 CS_OFFL_SIR_LRM_1B_20201009T131145_20201009T131226_D001 CS_OFFL_SIR_LRM_1B_20201009T131229_20201009T131406_D001 CS_OFFL_SIR_LRM_1B_20201009T131712_20201009T131825_D001 CS_OFFL_SIR_LRM_1B_20201009T134442_20201009T134908_D001 CS OFFL SIR LRM 1B 20201009T134930 20201009T135107 D001 CS_OFFL_SIR_LRM_1B_20201009T135641_20201009T142025 D001 CS OFFL SIR LRM 1B 20201009T142030 20201009T142030 D001 CS_OFFL_SIR_LRM_1B_20201009T142033_20201009T143006_D001 CS_OFFL_SIR_LRM_1B_20201009T144721_20201009T145041_D001 CS OFFL SIR LRM 1B 20201009T145059 20201009T145146 D001 CS OFFL SIR LRM 1B 20201009T145532 20201009T151932 D001 CS_OFFL_SIR_LRM_1B_20201009T152830_20201009T153154_D001 CS OFFL SIR LRM 1B 20201009T162449 20201009T163000 D001 CS_OFFL_SIR_LRM_1B_20201009T163050_20201009T163359_D001 CS OFFL SIR LRM 1B 20201009T163403 20201009T165854 D001 CS_OFFL_SIR_LRM_1B_20201009T170728_20201009T171101_D001 CS OFFL SIR LRM 1B 20201009T180251 20201009T180351 D001 CS_OFFL_SIR_LRM_1B_20201009T180607_20201009T180958_D001 CS OFFL SIR LRM 1B 20201009T181020 20201009T181052 D001 CS_OFFL_SIR_LRM_1B_20201009T181637_20201009T182132_D001 CS_OFEL_SIR_LRM_1B_20201009T182149_20201009T182636_D001 CS OFFL SIR LRM 1B 20201009T182742 20201009T183006 D001 CS OFFL SIR LRM 1B 20201009T183010 20201009T183024 D001 CS OFFL SIR LRM 1B 20201009T184232 20201009T184751 D001 CS OFFL SIR LRM 1B 20201009T191849 20201009T193036 D001 CS_OFFL_SIR_LRM_1B_20201009T194805_20201009T194922_D001 CS OFFL SIR LRM 1B 20201009T194928 20201009T194940 D001 CS_OFFL_SIR_LRM_1B_20201009T194951_20201009T195012_D001 CS_OFFL_SIR_LRM_1B_20201009T195138_20201009T195642_D001 CS_OFFL_SIR_LRM_1B_20201009T202319_20201009T202652_D001 CS OFFL SIR LRM 1B 20201009T203403 20201009T203852 D001 CS_OFFL_SIR_LRM_1B_20201009T203901_20201009T210928_D001 CS_OFFL_SIR_LRM_1B_20201009T210930_20201009T211022_D001 CS_OFFL_SIR_LRM_1B_20201009T221945_20201009T222530_D001 CS OFFL SIR LRM 1B 20201009T222812 20201009T222907 D001 CS_OFFL_SIR_LRM_1B_20201009T222909_20201009T223023 D001 CS OFFL SIR LRM 1B 20201009T223504 20201009T224136 D001 CS_OFFL_SIR_LRM_1B_20201009T224335_20201009T224552_D001 CS OFFL SIR LRM 1B 20201009T224554 20201009T224601 D001 CS_OFFL_SIR_LRM_1B_20201009T224603_20201009T224611_D001 CS_OFFL_SIR_LRM_1B_20201009T224614_20201009T224618_D001 CS OFFL SIR LRM 1B 20201009T224620 20201009T224626 D001 CS OFFL SIR LRM 1B 20201009T224628 20201009T224924 D001 CS_OFFL_SIR_LRM_1B_20201009T230954_20201009T231907_D001 CS OFFL SIR LRM 1B 20201009T232121 20201009T232213 D001 CS_OFFL_SIR_LRM_1B_20201009T232216_20201009T232420_D001

Loss of echo l oss of echo Loss of echo l oss of echo Loss of echo l oss of echo Loss of echo l oss of echo Loss of echo

The tracking echo is missing for one or more records The tracking echo is missing for one or more records

CS_OFFL_SIR_LRM_1B_20201009T232526_20201009T233634_D001	
CS_OFFL_SIR_LRM_1B_20201009T234252_20201009T234515_D001	

Loss of echo 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.

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:

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: 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

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:

5.5 L2 Measurement Quality Flag Check

CryoSat L2 data includes a guality 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.

56

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_220201008T235155_20201009T000941_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_220201009T001544_20201009T001614_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220201009T004353_20201009T005800_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_220201009T011348_20201009T011413_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220201009T013225_20201009T013439_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_220201009T013602_20201009T020734_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_220201009T022346_20201009T024740_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_220201009T031940_20201009T034629_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_220201009T040252_20201009T042957_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_220201009T043737_20201009T044014_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_220201009T045325_20201009T052416_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_220201009T054200_20201009T054556_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_220201009T061712_20201009T061929_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_220201009T063201_20201009T070435_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_220201009T072221_20201009T073837_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_220201009T075633_20201009T075746_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_220201009T080809_20201009T083246_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_220201009T083309_20201009T084329_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_220201009T090115_20201009T092649_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_220201009T094832_20201009T100119_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_220201009T100600_20201009T101857_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_220201009T104141_20201009T105412_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_220201009T105630_20201009T111522_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_220201009T112724_20201009T113205_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220201009T113552_20201009T114523_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_220201009T114758_20201009T120135_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_220201009T123744_20201009T124009_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_220201009T124132_20201009T124522_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_220201009T124538_20201009T124844_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_220201009T125007_20201009T125224_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_220201009T125239_20201009T125316_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_220201009T130442_20201009T131143_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220201009T131229_20201009T131406_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records

CS_OFFL_SIR_LRM_220201009T132501_20201009T134035_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_220201009T135641_20201009T142025_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_220201009T145532_20201009T151932_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_220201009T153539_20201009T160231_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_220201009T160357_20201009T160709_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_220201009T162151_20201009T162159_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_220201009T163403_20201009T165854_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_220201009T171630_20201009T174841_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_220201009T180044_20201009T180248_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_220201009T180251_20201009T180351_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_220201009T185512_20201009T191603_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_220201009T191849_20201009T193036_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_220201009T193955_20201009T194425_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_220201009T200012_20201009T200457_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_220201009T200644_20201009T201625_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_220201009T203403_20201009T203852_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_220201009T203901_20201009T210928_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_220201009T212316_20201009T215432_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_220201009T222909_20201009T223023_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_220201009T223504_20201009T224136_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_220201009T230331_20201009T230925_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_220201009T230954_20201009T231907_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_220201009T232526_20201009T233634_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

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	168	168	168	0	0
SIR_SAR_1B	117	117	117	0	0
SIR_SIN_1B	116	116	116	0	0
SIR_LRM_2	166	166	162	4	0
SIR_SAR_2	116	113	113	0	0
SIR_SIN_2	113	116	114	2	0
SIR_GDR_2	14	14	0	0	14

Number of products with QCC errors:

0

Product Type	MPHDUTNCDF	MPHXPFNCDF	MPHXVFNCDF	MPHYPFNCDF	MPHYVFNCDF	MPHZPFNCDF	MPHZVFNCDF	STRUCTURESIZ EANDREAD	-	-	-
SIR_GDR_2_	14	14	14	14	14	14	14	14			
0											
Test Description	n Key:										
Abbreviation	Test na	me		Details							
MPHDUTNCDF	MPH_De	Ita_UT1_NetCDF		Delta_UT1 mismat	ch						
MPHXPFNCDF	MPH_X_	Position_Float_v2_	NetCDF	X_Position mismat	ch (DBL float (GDF	R), rounded to 100)					
MPHXVFNCDF	MPH_X_	Velocity_Float_v2_	NetCDF	X_Velocity mismat	ch (DBL float (GDF	R), rounded to 1)					
MPHYPFNCDF	MPH_Y_	Position_Float_v2_	NetCDF	Y_Position mismat	ch (DBL float (GDF	R), 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 mismat	Z_Position mismatch (DBL float (GDR), rounded to 100)						
MPHZVFNCDF	MPH_Z_	Velocity_Float_v2_	NetCDF	Z_Velocity mismat	ch (DBL float (GDR	R), rounded to 1)					
STRUCTURESI	ZEANDESTRUCT	URE_SIZE_AND_I	READ	Under investigation	۱.						

6.2 QCC Warnings

Product Type	AXDME	AXSMMEOCI	-	-	-	-	-		
SIR_LRM_2_	0	4							
SIR_SIN_2_	2	0							
Abbreviation	Test name			Details					
AXDME	AttributeXrefDemMustExist			The xref_dem	The xref_dem attribute is mandatory in SIN products over continental ice				
AXSMMEOCI	AttributeXrefSlopeModelMustExistOverContinentalIce			The xref_slop	The xref_slope_model is mandatory in LRM products over continental ice				

Number of products with missing QCC reports: