

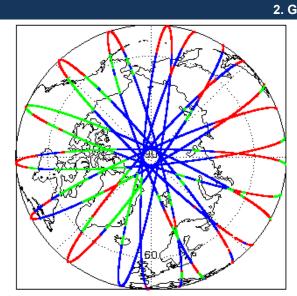
QA4EO Daily Report for OFFLINE data:

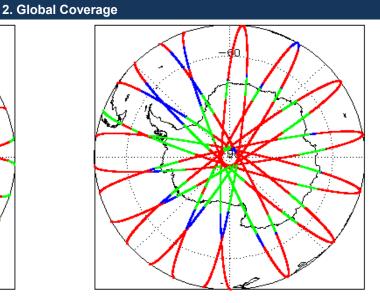
30/03/2021

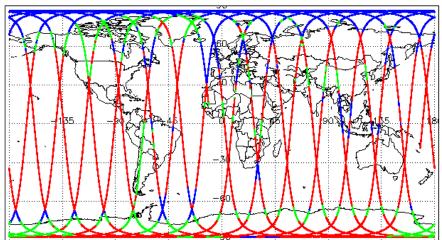
1. Overview

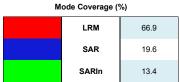
Demant Dreduction Deter	20, 4== 2021	Check	Status
Report Production Date:	29-Apr-2021	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ice Processor	Server check: calval-pds.cryosat.esa.int	Nominal
FIOLESSOI USEU.	Cryosal ice Processoi	Product Software Check	Nominal
Data Used:	L1B and L2 OFFLINE Data	Product Format Check	Nominal
Data Useu.	LID and L2 OFF LINE 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

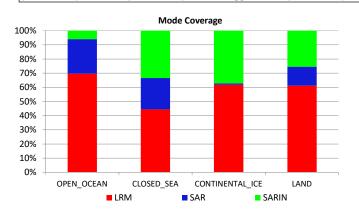
Mission / Instru	ument News
29-Mar-2021	None
30-Mar-2021	None
31-Mar-2021	Nothing planned

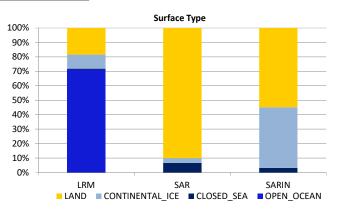












3. Instrument Configuration

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:

Test Failed

Description

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:

Product

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.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20210329T235954_20210330T000436_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T002635_20210330T002654_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T002656_20210330T002707_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T002710_20210330T002742_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020505_20210330T020543_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020548_20210330T020554_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020557_20210330T020619_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020622_20210330T020630_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020637_20210330T020640_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020643_20210330T020700_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T020707_20210330T020742_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T021121_20210330T022415_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T022620_20210330T024209_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T025818_20210330T030832_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T030938_20210330T031207_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T031451_20210330T032608_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034348_20210330T034729_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034731_20210330T034740_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034744_20210330T034759_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034801_20210330T034807_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034812_20210330T034818_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034820_20210330T034821_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034824_20210330T034829_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034834_20210330T034837_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T034839_20210330T035841_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T042848_20210330T042952_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T043435_20210330T050822_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T052224_20210330T052754_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T052756_20210330T052801_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T052803_20210330T052927_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T053125_20210330T053208_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T053619_20210330T053710_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T060351_20210330T060723_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T061329_20210330T063928_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T063930_20210330T064155_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T064157_20210330T064205_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T064207_20210330T064211_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T064214_20210330T064218_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T064220_20210330T064243_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T070355_20210330T070446_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T070506_20210330T071222_D001	Loss of echo	The tracking echo is missing for one or more records

CS OFFL SIR LRM 1B 20210330T071243 20210330T074002 D001 CS OFFL SIR LRM 1B 20210330T074645 20210330T075012 D001 CS OFFL SIR LRM 1B 20210330T084410 20210330T084654 D001 CS_OFFL_SIR_LRM_1B_20210330T084727_20210330T084813_D001 CS OFFL SIR LRM 1B 20210330T085011 20210330T090030 D001 CS_OFFL_SIR_LRM_1B_20210330T090225_20210330T090248_D001 CS OFFL SIR LRM 1B 20210330T090404 20210330T090938 D001 CS OFFL SIR LRM 1B 20210330T092134 20210330T092711 D001 CS_OFFL_SIR_LRM_1B_20210330T102218 20210330T102221 D001 CS OFFL SIR LRM 1B 20210330T102603 20210330T102640 D001 CS OFFL SIR LRM 1B 20210330T102704 20210330T102708 D001 CS_OFFL_SIR_LRM_1B_20210330T102751_20210330T102758_D001 CS_OFFL_SIR_LRM_1B_20210330T103136_20210330T103313_D001 CS_OFFL_SIR_LRM_1B_20210330T103456_20210330T103841_D001 CS OFFL SIR LRM 1B 20210330T110058 20210330T110607 D001 CS_OFFL_SIR_LRM_1B_20210330T111125_20210330T114612_D001 CS_OFFL_SIR_LRM_1B_20210330T114725_20210330T114743_D001 CS_OFFL_SIR_LRM_1B_20210330T114747_20210330T114840_D001 CS_OFFL_SIR_LRM_1B_20210330T125205_20210330T130909_D001 CS_OFFL_SIR_LRM_1B_20210330T132612_20210330T132647_D001 CS_OFFL_SIR_LRM_1B_20210330T132650_20210330T132651_D001 CS_OFFL_SIR_LRM_1B_20210330T132653_20210330T132709_D001 CS OFFL SIR LRM 1B 20210330T132714 20210330T132728 D001 CS_OFFL_SIR_LRM_1B_20210330T132734_20210330T132738_D001 CS OFFL SIR LRM 1B 20210330T132744 20210330T132748 D001 CS_OFFL_SIR_LRM_1B_20210330T132757_20210330T132801_D001 CS_OFFL_SIR_LRM_1B_20210330T132804_20210330T132804_D001 CS OFFL SIR LRM 1B 20210330T132807 20210330T132817 D001 CS OFFL SIR LRM 1B 20210330T132820 20210330T132826 D001 CS OFFL SIR LRM 1B 20210330T132828 20210330T132842 D001 CS OFFL SIR LRM 1B 20210330T140027 20210330T140204 D001 CS_OFFL_SIR_LRM_1B_20210330T140206_20210330T141410_D001 CS OFFL SIR LRM 1B 20210330T143103 20210330T144640 D001 CS_OFFL_SIR_LRM_1B_20210330T144842_20210330T145804_D001 CS OFFL SIR LRM 1B 20210330T150106 20210330T150441 D001 CS_OFFL_SIR_LRM_1B_20210330T150443_20210330T150827_D001 CS OFFL SIR LRM 1B 20210330T152555 20210330T153728 D001 CS_OFFL_SIR_LRM_1B_20210330T154331_20210330T154402_D001 CS_OFEL_SIR_LRM_1B_20210330T155107_20210330T155121_D001 CS OFFL SIR LRM 1B 20210330T163402 20210330T163510 D001 CS OFFL SIR LRM 1B 20210330T163910 20210330T164140 D001 CS OFFL SIR LRM 1B 20210330T164142 20210330T164149 D001 CS_OFFL_SIR_LRM_1B_20210330T164151_20210330T164158_D001 CS_OFFL_SIR_LRM_1B_20210330T164201_20210330T164202_D001 CS OFFL SIR LRM 1B 20210330T164206 20210330T164244 D001 CS_OFFL_SIR_LRM_1B_20210330T164246_20210330T164803_D001 CS_OFFL_SIR_LRM_1B_20210330T170347_20210330T173634_D001 CS_OFFL_SIR_LRM_1B_20210330T173901_20210330T174113_D001 CS OFFL SIR LRM 1B 20210330T174132 20210330T174716 D001 CS_OFFL_SIR_LRM_1B_20210330T174946_20210330T181519_D001 CS_OFFL_SIR_LRM_1B_20210330T182452_20210330T182521_D001 CS_OFFL_SIR_LRM_1B_20210330T184052_20210330T184346_D001 CS OFFL SIR LRM 1B 20210330T184348 20210330T184353 D001 CS_OFFL_SIR_LRM_1B_20210330T184645_20210330T184903 D001 CS OFFL SIR LRM 1B 20210330T184905 20210330T191537 D001 CS_OFFL_SIR_LRM_1B_20210330T192825_20210330T195645_D001 CS OFFL SIR LRM 1B 20210330T195647 20210330T195736 D001 CS OFFL SIR LRM 1B 20210330T195739 20210330T195743 D001 CS_OFFL_SIR_LRM_1B_20210330T195748_20210330T195750_D001 CS OFFL SIR LRM 1B 20210330T195753 20210330T195826 D001 CS_OFFL_SIR_LRM_1B_20210330T195851_20210330T200049_D001 CS_OFFL_SIR_LRM_1B_20210330T200123_20210330T200343_D001 CS OFFL SIR LRM 1B 20210330T211725 20210330T212258 D001 CS_OFFL_SIR_LRM_1B_20210330T212419_20210330T213121_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_20210330T213658_20210330T213748_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T213803_20210330T213927_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T213927_20210330T214026_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T230938_20210330T231434_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20210330T231512_20210330T231645_D001	Loss of echo	The tracking echo is missing for one or more records

4.5 L1B Calibration Usage Cheo	:k				
Each product is checked in order to ensure tha	t the necessary calibrati	on files have been used	d in processing.		
Number of products with errors:	0				

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:

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).

0

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 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.

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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_220210329T235954_20210330T000436_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_220210330T002953_20210330T010251_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_220210330T012055_20210330T015104_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_220210330T020643_20210330T020700_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records

CS_OFFL_SIR_LRM_220210330T021121_20210330T022415_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_220210330T022620_20210330T024209_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_220210330T025818_20210330T030832_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_220210330T031451_20210330T032608_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_220210330T032802_20210330T032941_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220210330T034839_20210330T035841_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_220210330T040158_20210330T040441_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_220210330T040621_20210330T042104_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_220210330T043435_20210330T050822_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_220210330T052803_20210330T052927_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220210330T053751_20210330T060041_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_220210330T061329_20210330T063928_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_220210330T063930_20210330T064155_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_220210330T071243_20210330T074002_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_220210330T075256_20210330T082745_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_220210330T084727_20210330T084813_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_220210330T085011_20210330T090030_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_220210330T092134_20210330T092711_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220210330T093220_20210330T100622_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_220210330T102013_20210330T102110_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_220210330T103943_20210330T105925_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_220210330T111125_20210330T114612_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_220210330T121043_20210330T121504_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_220210330T121600_20210330T123337_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_220210330T125205_20210330T130909_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_220210330T130924_20210330T131308_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_220210330T131409_20210330T132125_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_220210330T134114_20210330T135918_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_220210330T140206_20210330T141410_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_220210330T143103_20210330T144640_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_220210330T144842_20210330T145804_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_220210330T152555_20210330T153728_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_220210330T154331_20210330T154402_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220210330T161013_20210330T162546_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_220210330T163910_20210330T164140_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220210330T170347_20210330T173634_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_220210330T174946_20210330T181519_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_220210330T184645_20210330T184903_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_220210330T184905_20210330T191537_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_220210330T192825_20210330T195645_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_220210330T202105_20210330T205442_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_220210330T213305_20210330T213426_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_220210330T215950_20210330T223407_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_220210330T224623_20210330T230622_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_20210330T230938_20210330T231434_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_220210330T231512_20210330T231645_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_220210330T233809_20210331T000008_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	172	172	172	0	0
SIR_SAR_1B	120	120	120	0	0
SIR_SIN_1B	107	107	107	0	0
SIR_LRM_2	172	172	168	4	0
SIR_SAR_2	107	120	120	0	0
SIR_SIN_2	120	107	104	3	0
SIR_GDR_2	14	14	0	0	14

6.1 QCC Errors

Number of products with QCC errors:

Product Type	MPHDUTNCDF	MPHXPFNCDF	MPHXVFNCDF	MPHYPFNCDF	MPHYVFNCDF	MPHZPFNCDF	MPHZVFNCDF	STRUCTURESIZ EANDREAD	-	-	-
SIR_GDR_2_	14	14	14	14	14	14	14	14			
Test Description	n Key:										
Abbreviation	Test na	me		Details							
MPHDUTNCDF	MPH_De	lta_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	(_Velocity mismatch (DBL float (GDR), rounded to 1)							
MPHYPFNCDF	MPH_Y_	Position_Float_v2_	NetCDF	_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 mismat	ch (DBL float (GDF	R), rounded to 100)					
MPHZVFNCDF	MPH_Z_	Velocity_Float_v2_	NetCDF	Z_Velocity mismat	ch (DBL float (GDF), rounded to 1)					

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6.2 QCC Warnings

Product Type	AXDME	AXSMMEOCI		Total number of occur	rences of each warning	9			
		AXSIMIMEOCI	-	-	-	-	•		
SIR_GDR_2_	0	1							
SIR_LRM_2_	0	4							
est Description Key	/:								
Abbreviation	Test name			Details	Details				
AXDME	AttributeXrefDemMustExist			The xref_den	The xref_dem attribute is mandatory in SIN products over continental ice				
XSMMEOCI	AttributeXrefSlope	ModelMustExistOverContinent	allce	The xref_slop	e_model is mandatory in L	RM products over continental i	ce		
				I					
.2 Missing QC	C Reports								
J.Z Milasing QC	so Reports								

Product name CS_OFFL_SIR_GDR_2__20210330T230447_20210331T004401_D002