

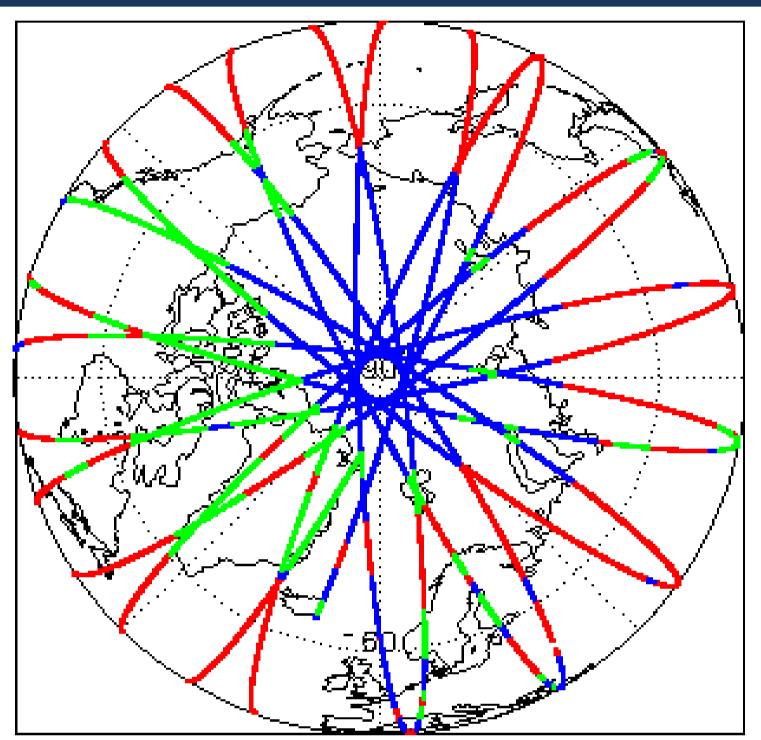


1. Overview

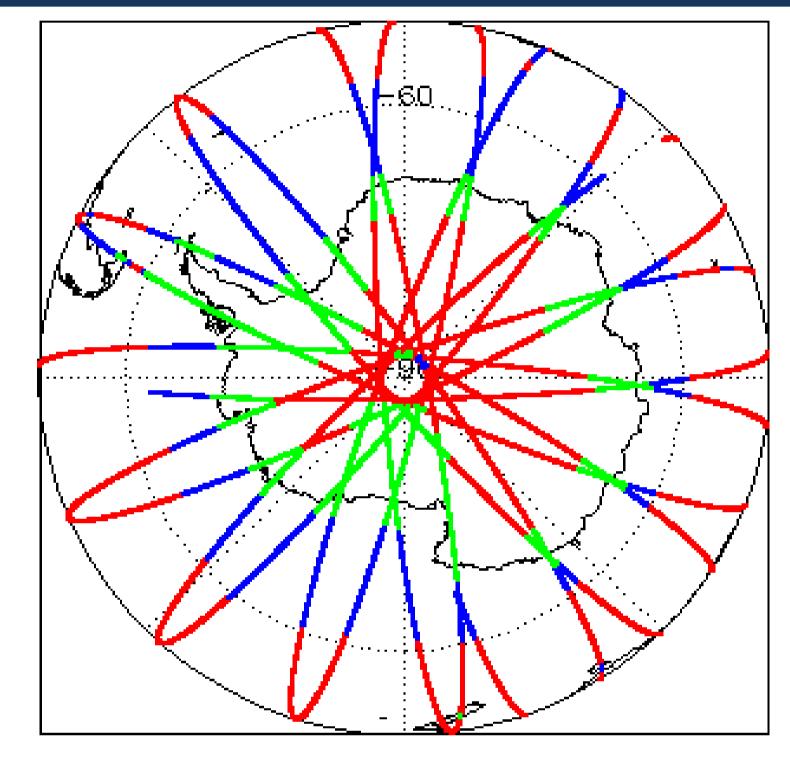
Report Production Date:	09-Sep-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1B and L2 OFFLINE Data

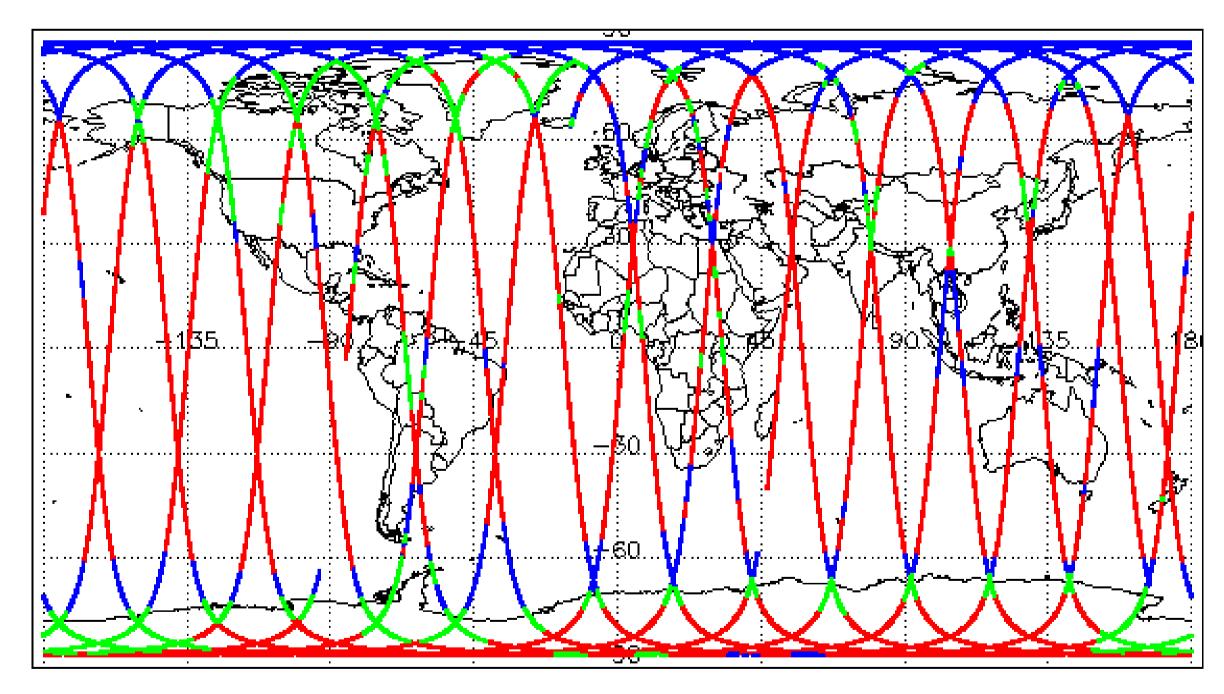
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Star Tracker Usage Check	Nominal
L1B Tracking Flag Check	See Section 4.4
L1B Calibration Usage Check	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			
09-Aug-2020	None		
10-Aug-2020	None		
11-Aug-2020	SIRAL Unavailability: Planned roll manoeuvre from 03:49:00 UTC (to StandBy) to 07:14:17 UTC (to_SIN) and from 16:22:00 UTC (to StandBy) to 19:33:34 (to_SIN)		



2. Global Coverage

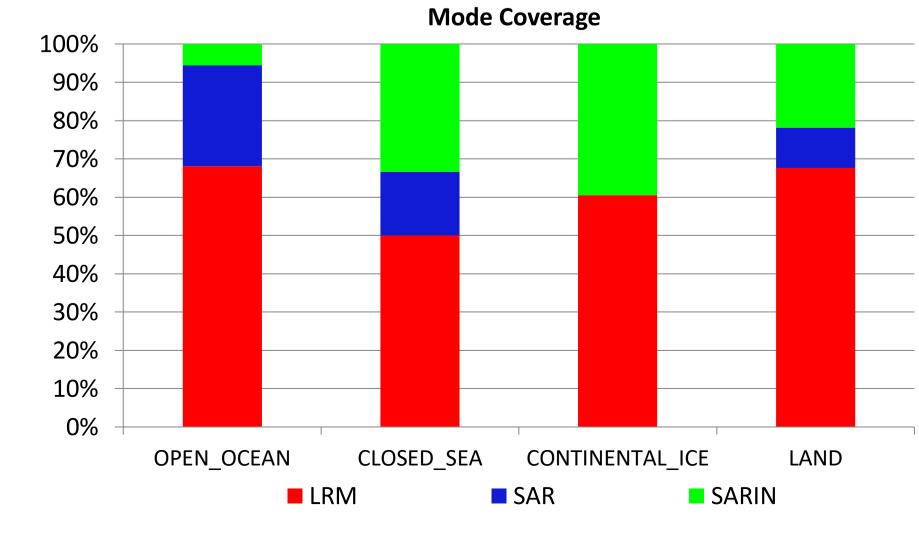


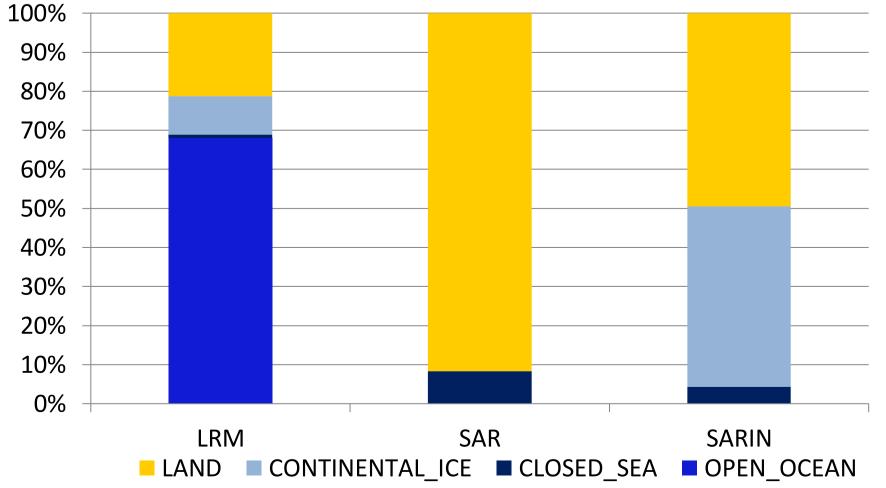




LRM	66.9
SAR	20.0
SARIn	13.0

Surface Type





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	n 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 Ana	lysis		
For all products, a series of pre-defined che	ecks 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 Chec	k		
Each product is checked in order to ensure	a valid star tracker file has beer	used in processing.	
Number of products with errors:	0		
4.4 L1B Tracking Flags Chec	k		
CryoSat L1B data includes a tracking flag f	or each measurement record. Th	e 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:

90

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20200810T000117_20200810T003720_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T010853_20200810T012130_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T013054_20200810T013249_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T014020_20200810T015515_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T015718_20200810T020730_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T021029_20200810T021649_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T022927_20200810T024555_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T024858_20200810T025017_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T025036_20200810T025047_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T025053_20200810T025059_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T025101_20200810T025739_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T030925_20200810T031211_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034232_20200810T034354_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034405_20200810T034519_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034522_20200810T034529_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034531_20200810T034541_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034543_20200810T034828_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T034830_20200810T035647_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T040829_20200810T041048_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T041211_20200810T041801_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T042045_20200810T042321_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T042325_20200810T042645_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T044724_20200810T045602_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T045923_20200810T052334_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T052847_20200810T052927_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T052929_20200810T053212_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T054708_20200810T054757_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T054919_20200810T055355_D001	Loss of echo	The tracking echo is missing for one or more records

CS_OFFL_SIR_LRM_1B_20200810T013054_20200810T013249_D001
CS_OFFL_SIR_LRM_1B_20200810T014020_20200810T015515_D001
CS_OFFL_SIR_LRM_1B_20200810T015718_20200810T020730_D001
CS_OFFL_SIR_LRM_1B_20200810T021029_20200810T021649_D001
CS_OFFL_SIR_LRM_1B_20200810T022927_20200810T024555_D001
CS_OFFL_SIR_LRM_1B_20200810T024858_20200810T025017_D001
CS_OFFL_SIR_LRM_1B_20200810T025036_20200810T025047_D001
CS_OFFL_SIR_LRM_1B_20200810T025053_20200810T025059_D001
CS_OFFL_SIR_LRM_1B_20200810T025101_20200810T025739_D001
CS_OFFL_SIR_LRM_1B_20200810T030925_20200810T031211_D001
CS_OFFL_SIR_LRM_1B_20200810T034232_20200810T034354_D001
CS_OFFL_SIR_LRM_1B_20200810T034405_20200810T034519_D001
CS_OFFL_SIR_LRM_1B_20200810T034522_20200810T034529_D001
CS_OFFL_SIR_LRM_1B_20200810T034531_20200810T034541_D001
CS_OFFL_SIR_LRM_1B_20200810T034543_20200810T034828_D001
CS_OFFL_SIR_LRM_1B_20200810T034830_20200810T035647_D001
CS_OFFL_SIR_LRM_1B_20200810T040829_20200810T041048_D001
CS_OFFL_SIR_LRM_1B_20200810T041211_20200810T041801_D001
CS_OFFL_SIR_LRM_1B_20200810T042045_20200810T042321_D001
CS_OFFL_SIR_LRM_1B_20200810T042325_20200810T042645_D001
CS_OFFL_SIR_LRM_1B_20200810T044724_20200810T045602_D001
CS_OFFL_SIR_LRM_1B_20200810T045923_20200810T052334_D001
CS_OFFL_SIR_LRM_1B_20200810T052847_20200810T052927_D001
CS_OFFL_SIR_LRM_1B_20200810T052929_20200810T053212_D001
CS_OFFL_SIR_LRM_1B_20200810T054708_20200810T054757_D001
CS_OFFL_SIR_LRM_1B_20200810T054919_20200810T055355_D001

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CS_OFFL_SIR_LRM_1B_20200810T055520_20200810T055522_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T055525_20200810T055709_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T055711_20200810T062259_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T063852_20200810T070720_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T070757_20200810T071642_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T082700_20200810T083306_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T083502_20200810T083646_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T084036_20200810T084235_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T084419_20200810T084427_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T084442_20200810T084509_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T084640_20200810T084959_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T085234_20200810T085300_D001	Loss of echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_LRM_1B_20200810T101624_20200810T102331_D001	Loss of echo	The tracking echo is missing for one or more records

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CS_OFFL_SIR_LRM_1B_20200810T102524_20200810T102644_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T104442_20200810T105606_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T111459_20200810T111945_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T122331_20200810T124217_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T124646_20200810T125307_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T125333_20200810T125907_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T131807_20200810T133032_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140222_20200810T140426_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140428_20200810T140436_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140438_20200810T140509_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140511_20200810T140517_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140519_20200810T140718_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T140720_20200810T140808_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T142333_20200810T143811_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T150015_20200810T150605_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T150608_20200810T150638_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T151221_20200810T152456_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T152619_20200810T152835_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T154108_20200810T154539_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T154624_20200810T154626_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T154628_20200810T154658_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T154700_20200810T155040_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T155042_20200810T155117_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T155119_20200810T155142_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T155144_20200810T155251_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T155318_20200810T155437_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T162551_20200810T162706_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T163300_20200810T165010_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T165013_20200810T165830_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T170054_20200810T170616_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T171956_20200810T172714_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T172855_20200810T172949_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T173201_20200810T175217_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T190025_20200810T191022_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T191027_20200810T193017_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T194349_20200810T194719_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T203640_20200810T204051_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T204149_20200810T204404_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T204438_20200810T204529_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T204715_20200810T204720_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T204723_20200810T204818_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T205003_20200810T205853_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T205949_20200810T210745_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T211848_20200810T212413_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T215502_20200810T220624_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T222401_20200810T222444_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T222737_20200810T223311_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T225813_20200810T230312_D001	Loss of echo
CS_OFFL_SIR_LRM_1B_20200810T231020_20200810T234612_D001	Loss of echo

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4.5 L1B Calibration Usage Check

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:

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:



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:

3

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20200810T084442_20200810T084509_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
CS_OFFL_SIR_LRM_1B_20200810T171956_20200810T172714_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
CS_OFFL_SIR_LRM_1B_20200810T204149_20200810T204404_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

0

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:

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:

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:

54

Product	Test Failed	Description
CS_OFFL_SIR_LRM_220200810T000117_20200810T003720_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_220200810T004858_20200810T010845_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_220200810T010853_20200810T012130_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_220200810T014020_20200810T015515_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_220200810T015718_20200810T020730_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_220200810T022927_20200810T024555_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_220200810T033522_20200810T033757_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_220200810T034522_20200810T034529_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200810T034531_20200810T034541_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records

CS_OFFL_SIR_LRM_220200810T034830_20200810T035647_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
	Height Error (Retracker 2), Height Error	There is a height and backscatter error for Retracker 2 and a height error
CS_OFFL_SIR_LRM_220200810T040829_20200810T041048_D001	(Retracker 3), Backscatter Error (Retracker 2)	for Retracker 3 for one or more records
CS_OFFL_SIR_LRM_220200810T041211_20200810T041801_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_220200810T042045_20200810T042321_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_220200810T042325_20200810T042645_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_220200810T045923_20200810T052334_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_220200810T053336_20200810T053413_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_220200810T055711_20200810T062259_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_220200810T063852_20200810T070720_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_220200810T070757_20200810T071642_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_220200810T073034_20200810T080044_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_220200810T082700_20200810T083306_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_220200810T085342_20200810T085531_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_220200810T090733_20200810T094042_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_220200810T095850_20200810T101420_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_220200810T103244_20200810T103428_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_220200810T104442_20200810T105606_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_220200810T105702_20200810T111448_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_220200810T113717_20200810T115629_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_220200810T115655_20200810T121112_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_220200810T122331_20200810T124217_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_220200810T124646_20200810T125307_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_220200810T125333_20200810T125907_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_220200810T131807_20200810T133032_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_220200810T133146_20200810T134832_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_220200810T141052_20200810T142130_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_220200810T142333_20200810T143811_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_220200810T145534_20200810T145952_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_220200810T150015_20200810T150605_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_220200810T151221_20200810T152456_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_220200810T152619_20200810T152835_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_220200810T163300_20200810T165010_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_220200810T165013_20200810T165830_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_220200810T171956_20200810T172714_D001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220200810T173201_20200810T175217_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_220200810T175310_20200810T175557_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_220200810T181147_20200810T183810_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_220200810T191027_20200810T193017_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_220200810T195203_20200810T202517_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_220200810T203640_20200810T204051_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_220200810T213119_20200810T215216_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_220200810T215502_20200810T220624_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_220200810T221633_20200810T221944_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_220200810T223615_20200810T225259_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_220200810T231020_20200810T234612_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	148	148	148	0	0
SIR_SAR_1B	107	107	107	0	0
SIR_SIN_1B	105	105	105	0	0
SIR_LRM_2	148	148	142	6	0
SIR_SAR_2	105	107	107	0	0
SIR_SIN_2	107	105	105	0	0
SIR_GDR_2	15	15	0	0	15

6.1 QCC Errors

Pro	oduct Type	MPHDUTNCDF	MPHXPFNCDF	MPHXVFNCDF	MPHYPFNCDF	MPHYVFNCDF	MPHZPFNCDF	MPHZVFNCDF	-	-	-	-
SI	R_GDR_2_	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)				

6.2 QCC Warnings

Number of QCC reports with warnings

7

0

Total number of occurrences of each warning

Product T	уре	AXSMMEOCI	AXSMEOOO	AXWMMEOOO	-	-	-	-
SIR_LRM	_2_	5	1	1				

Test Description Key:						
Abbreviation	Test name	Details				
AXSMMEOCI	AttributeXrefSlopeModelMustExistOverContinentalIce	The xref_slope_model is mandatory in LRM products over continental ice				
AXSMEOOO	AttributeXrefSsbMustExistOverOpenOcean	The xref_ssb is mandatory in LRM products over open ocean				
AXWMMEOOO	AttributeXrefWindModelMustExistOverOpenOcean	The xref_wind_model attribute is mandatory in LRM products over open ocean				

6.2 Missing QCC Reports

Number of products with missing QCC reports: