



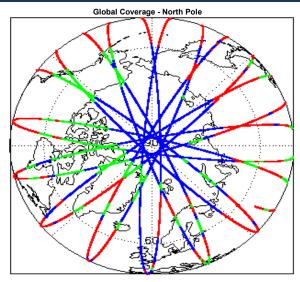
# 1. Overview

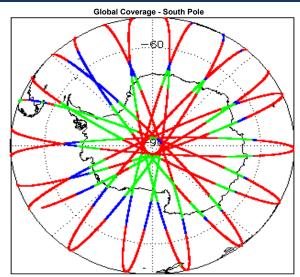
Report Production Date:	01-Jun-2018	
Processor Used:	CryoSat Ice Processor	
Data Used:	L1B and L2 OFFLINE Data	

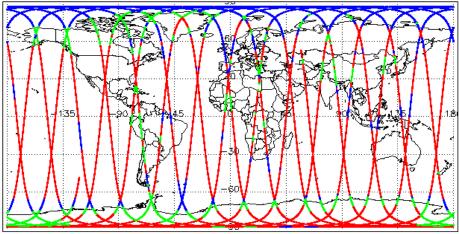
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Star Tracker Usage Check	Nominal
L1B Calibration Usage Check	Nominal
L1B & L2 Auxiliary Data File Usage Check	Nominal
L1B & L2 Auxiliary Correction Error Check	Nominal
L1B & L2 Measurement Confidence Data Check	See Section 4.7 and 5.5

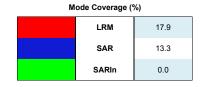
Mission / Inst	rument News
30-Apr-2018	None
01-May-2018	None
02-May-2018	Nothing planned

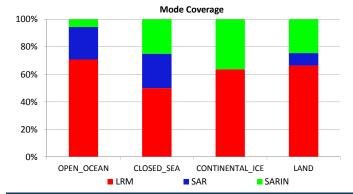
# 2. Global Coverage

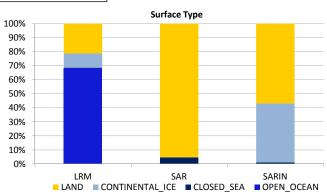












# 3. Instrument Configuration

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

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

## 4. Level 1B Data Quality Check

### 4.1 L1B Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a product file (.DBL)

Number of products with errors:

### 4.2 L1B Product Header Analysis

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

Number of products with errors:

#### 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:

## 4.4 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

## 4.5 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

#### 4.6 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:

### 4.7 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:

## 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.

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: 11

Product	Test Failed	Description
CS_OFFL_SIR_LRM_220180501T001800_20180501T004630_C001		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_220180501T011010_20180501T014321_C001	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_220180501T023401_20180501T023540_C001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records

CS OFFI SIR LPM 2 20180501T033600 20180501T035530 C001	,	records
		There is a height and backscatter error for Retracker 2 for one or more records
	eight Error (Retracker 2), Backscatter ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T042716_20180501T050059_C001 (Re		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_220180501T050853_20180501T051251_C001	ırface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220180501T051527_20180501T054351_C001 (Re	etracker 3), Backscatter Error etracker 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_2201805011054406_201805011055109_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011060801_201805011060827_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T060909_20180501T061002_C001 (Re(Re	etracker 3), Backscatter Error etracker 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_2201805011061029_201805011061811_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011062253_201805011064024_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
	• , , ,	There is a height and backscatter error for Retracker 2 for one or more records
	• , , ,	There is a height and backscatter error for Retracker 2 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T075244_20180501T080217_C001 (Re		There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
	eight Error (Retracker 2), Backscatter ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T084510_20180501T084657_C001 (Re		There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
	eight Error (Retracker 2), Backscatter ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
	• , , ,	There is a height and backscatter error for Retracker 2 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
	eight Error (Retracker 2), Backscatter ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
	• , , ,	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2_20180501T114522_20180501T114847_C001 Suit	ırface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011120850_201805011122407_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T124942_20180501T131126_C001 (Re	etracker 3), Backscatter Error etracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
		No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220180501T133105_20180501T140520_C001 (Re	etracker 3), Backscatter Error etracker 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_2201805011141837_201805011141931_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011141944_2018050111142026_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011144421_201805011144804_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T151031_20180501T153250_C001 (Re	etracker 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_2201805011153536_2018050111544449_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2201805011155705_201805011160110_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T160828_20180501T161327_C001 (Re	etracker 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_220180501T161700_20180501T162145_C001 (Re	etracker 3), Backscatter Error etracker 2)	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
		There is a height and backscatter error for Retracker 2 for one or more records
		No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_2201805011164952_201805011165532_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_2_20180501T165542_20180501T172258_C001 (Re	etracker 3), Backscatter Error etracker 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_2201805011174719_201805011181119_C001	ror (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220180501T182940_20180501T184708_C001 (Re	etracker 3), Backscatter Error etracker 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_220180501T184928_20180501T185838_C001 (Re		There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records

	Height Error (Retracker 2), Backscatter	There is a height and backscatter error for Retracker 2 for one or more
CS_OFFL_SIR_LRM_220180501T192018_20180501T192300_C001	Error (Retracker 2)	records
CS_OFFL_SIR_LRM_220180501T192326_20180501T193552_C001	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_220180501T194212_20180501T195352_C001	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_220180501T195937_20180501T200203_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220180501T200847_20180501T202337_C001	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_220180501T202516_20180501T204035_C001	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_220180501T210207_20180501T210918_C001	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_220180501T211041_20180501T211536_C001	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_220180501T211752_20180501T213437_C001	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_220180501T213722_20180501T214606_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220180501T214824_20180501T221045_C001	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_220180501T222328_20180501T222432_C001	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_220180501T225008_20180501T231339_C001	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_220180501T232718_20180501T235637_C001	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_SIN_220180501T000556_20180501T000736_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T000848_20180501T001024_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T001456_20180501T001739_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T014559_20180501T014933_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T015508_20180501T015623_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
	-	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T032517_20180501T032837_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T033349_20180501T033514_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T041559_20180501T041714_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T050229_20180501T050537_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T051252_20180501T051400_C001	SARIn X-track Angle Error	records
CS_OFFL_SIR_SIN_220180501T055144_20180501T055250_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T055516_20180501T055626_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T064035_20180501T064216_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T064954_20180501T065145_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T073311_20180501T073540_C001	SARIn X-track Angle Error, Surface Model Unavailable	An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records
CS_OFFL_SIR_SIN_220180501T081955_20180501T082141_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T082703_20180501T082709_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20180501T082825_20180501T083516_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T090954_20180501T091422_C001	SARIn X-track Angle Error, Surface Model Unavailable	An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records
CS_OFFL_SIR_SIN_220180501T095857_20180501T100143_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20180501T100602_20180501T100608_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20180501T100806_20180501T101112_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T113839_20180501T113953_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20180501T114847_20180501T115005_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T123850_20180501T123945_C001	SARIn X-track Angle Error, Surface	An ambiguous angle was detected for SARIn mode and no DEM or Slope
CS_OFFL_SIR_SIN_2_20180501T131821_20180501T131944_C001	Model Unavailable SARIn X-track Angle Error	Model was used for one or more records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T132754_20180501T132907_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T145758_20180501T145923_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS OFFL SIR SIN 2 20180501T150442 20180501T150749 C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
	SARIn X-track Angle Error, Surface	records  An ambiguous angle was detected for SARIn mode and no DEM or Slope
CS_OFFL_SIR_SIN_2_20180501T155611_20180501T155635_C001	Model Unavailable	Model was used for one or more records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_2_20180501T163741_20180501T164028_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T164342_20180501T164717_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220180501T181820_20180501T182054_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIII mode for one or more
CS_OFFL_SIR_SIN_220180501T182248_20180501T182526_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIH mode for one or more
CS_OFFL_SIR_SIN_220180501T182728_20180501T182912_C001	SARIn X-track Angle Error	records

CS_OFFL_SIR_SIN_220180501T191324_20180501T191444_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T191856_20180501T192010_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T195353_20180501T195937_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T200203_20180501T200231_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T200655_20180501T200834_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T204754_20180501T204847_C001	SARIn X-track Angle Error, Surface Model Unavailable	An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records
CS_OFFL_SIR_SIN_220180501T205255_20180501T205505_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T213543_20180501T213722_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T214607_20180501T214816_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T223208_20180501T223654_C001	SARIn X-track Angle Error, Surface Model Unavailable	An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records
CS_OFFL_SIR_SIN_220180501T231518_20180501T231644_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180501T231829_20180501T231931_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20180501T232400_20180501T232621_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode 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	159	159	159	0	0
SIR_LRM_2	156	156	156	0	0
SIR_LRMI2_	156	156	156	0	0
SIR_SAR_1B	118	118	118	0	0
SIR_SAR_2	118	118	118	0	0
SIR_SARI2_	118	118	118	0	0
SIR_SIN_1B	107	107	107	0	0
SIR_SIN_2	107	107	107	0	0
SIR_SINI2	107	107	107	0	0
SIR_GDR_2	15	15	15	0	0

# 6.1 QCC Errors

Number of products with QCC errors:

# 6.2 QCC Warnings

Number of QCC reports with warnings

0

0

# 6.2 Missing QCC Reports

Number of products with missing QCC reports:

215