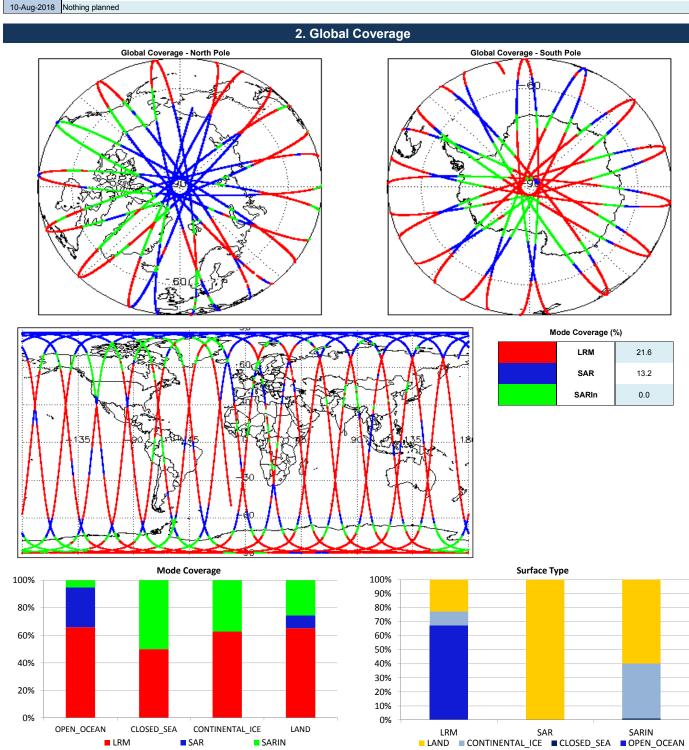


# IDEAS+ Daily Report for OFFLINE data:

<u>09/08/2018</u>

| 1. Overview               |                         |  |                         |  |  |
|---------------------------|-------------------------|--|-------------------------|--|--|
|                           |                         |  |                         |  |  |
| Report Production Date:   | : 06-Sep-2018           | Check                                      | Status<br>Nominal       |  |  |
|                           |                         | Server check: science-pds.cryosat.esa.int  |                         |  |  |
| Processor Used:           | CryoSat Ice Processor   | Server check: calval-pds.cryosat.esa.int   | Nominal                 |  |  |
|                           |                         | Product Software Check                     | Nominal                 |  |  |
| Data Used:                | L1B and L2 OFFLINE Data | Product Format Check                       | Nominal                 |  |  |
| Data Oseu.                |                         | 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 / Instrument News |                         |  |                         |  |  |
| 08-Aug-2018 None          |                         |  |                         |  |  |
| 09-Aug-2018 None          |                         |  |                         |  |  |



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:

## 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: 1

Test Failed

#### Number of products with errors

Product

CS\_OFFL\_SIR\_LRM\_1B\_20180809T033251\_20180809T034526\_C001

Echo error, TRK echo error

Description 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:

### 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.

### 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 OFFE SIR LEM 2 201808081235749 201808091003145 C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2) | There is a height and backscatter error for Retracker 2 for one or more records |

| CS_OFFL_SIR_LRM_220180809T004400_20180809T011940_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(Retracker 2) | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
|---|---|---|
| CS_OFFL_SIR_LRM_220180809T013839_20180809T015104_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T015224_20180809T020911_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T023053_20180809T024202_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T024405_20180809T025842_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T031602_20180809T031952_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T033251_20180809T034526_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(Retracker 2) | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
| CS_OFFL_SIR_LRM_220180809T034650_20180809T034907_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T042319_20180809T043733_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T044620_20180809T044737_C001 | Surface Model Unavailable   | No DEM or Slope Model was used for the location of one or more records  |
| CS_OFFL_SIR_LRM_220180809T045328_20180809T051519_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T051522_20180809T051853_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T055224_20180809T061627_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T062518_20180809T062844_C001 | Surface Model Unavailable   | No DEM or Slope Model was used for the location of one or more records  |
| CS_OFFL_SIR_LRM_220180809T064845_20180809T065838_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T072959_20180809T075553_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T080416_20180809T080746_C001 | Surface Model Unavailable   | No DEM or Slope Model was used for the location of one or more records  |
| CS_OFFL_SIR_LRM_220180809T082509_20180809T084542_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T085707_20180809T090112_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(Retracker 2) | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
| CS_OFFL_SIR_LRM_220180809T093914_20180809T094439_C001 | Surface Model Unavailable   | No DEM or Slope Model was used for the location of one or more records  |
| CS_OFFL_SIR_LRM_220180809T095145_20180809T101242_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T101528_20180809T102651_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T103656_20180809T104021_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T104804_20180809T105332_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T105642_20180809T111326_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T111840_20180809T112337_C001 | Surface Model Unavailable   | No DEM or Slope Model was used for the location of one or more records  |
| CS_OFFL_SIR_LRM_220180809T113046_20180809T120640_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(Retracker 2) | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
| CS_OFFL_SIR_LRM_220180809T121707_20180809T121759_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T122745_20180809T125114_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T131030_20180809T132523_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T132526_20180809T132702_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T133144_20180809T134600_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T135915_20180809T141544_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T141759_20180809T143217_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T144921_20180809T150332_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T150543_20180809T151525_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(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_220180809T153907_20180809T155048_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error<br>(Retracker 2) | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
| CS_OFFL_SIR_LRM_220180809T155053_20180809T155344_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T155956_20180809T161313_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T162918_20180809T164527_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T164545_20180809T165058_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T165757_20180809T170442_C001 | Height Error (Retracker 2), Backscatter<br>Error (Retracker 2)                                | There is a height and backscatter error for Retracker 2 for one or more records                                       |
| CS_OFFL_SIR_LRM_220180809T171653_20180809T171704_C001 | Height Error (Retracker 2), Height Error<br>(Retracker 3), Backscatter Error                  | There is a height and backscatter error for Retracker 2 and a height error<br>for Retracker 3 for one or more records |
|   | (Retracker 2)   |   |

CS\_OFFL\_SIR\_LRM\_2\_\_20180809T171734\_20180809T172518\_C001 CS\_OFFL\_SIR\_LRM\_2\_20180809T172703\_20180809T173009\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T173014\_20180809T175257\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T175920\_20180809T180416\_C001 CS OFFL SIR LRM 2 20180809T180911 20180809T183251 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T183437\_20180809T184352\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T190544\_20180809T191539\_C001 CS\_OFFL\_SIR\_LRM\_2\_20180809T194754\_20180809T201504\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T202119\_20180809T202543\_C001 CS OFFL SIR LRM 2 20180809T203731 20180809T211012 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T211748\_20180809T212310\_C001 CS OFFL SIR LRM 2 20180809T220107 20180809T220455 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T221633\_20180809T222548\_C001 CS OFFL SIR LRM 2 20180809T222834 20180809T224951 C001 CS OFFL SIR LRM 2 20180809T230726 20180809T231708 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T231855\_20180809T232453\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180809T232700\_20180809T233127\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T003156\_20180809T003421\_C001 CS OFFL SIR SIN 2 20180809T003503 20180809T003608 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T012041\_20180809T012208\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T013006\_20180809T013151\_C001 CS OFFL SIR SIN 2 20180809T020912 20180809T021332 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T021417\_20180809T021533\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T025951\_20180809T030134\_C001 CS OFFL SIR SIN 2 20180809T030700 20180809T030706 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T030825\_20180809T031100\_C001 CS OFFL SIR SIN 2 20180809T031311 20180809T031442 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T035001\_20180809T035158\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T035202\_20180809T035427\_C001 CS OFFL SIR SIN 2 20180809T043915 20180809T044109 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T044559\_20180809T044604\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T044614\_20180809T044620\_C001 CS OFFL SIR SIN 2 20180809T044737 20180809T045104 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T053755\_20180809T053834\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T061842\_20180809T062107\_C001 CS OFFL SIR SIN 2 20180809T062457 20180809T062502 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T062512\_20180809T062518\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T062844\_20180809T063022\_C001 CS OFFL SIR SIN 2 20180809T075757 20180809T075921 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T080411\_20180809T080416\_C001 CS OFFL SIR SIN 2 20180809T080747 20180809T080922 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T093750\_20180809T093914\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T094440\_20180809T094752\_C001 CS OFFL SIR SIN 2 20180809T103555 20180809T103656 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T111725\_20180809T111839\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T112337\_20180809T112659\_C001 CS OFFL SIR SIN 2 20180809T121906 20180809T121940 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T125813\_20180809T130049\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180809T130242\_20180809T130908\_C001 CS OFFL SIR SIN 2 20180809T135357 20180809T135444 C001

Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Surface Model Unavailable Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Surface Model Unavailable Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) SARIn X-track Angle Error SARIn X-track Angle Error, Surface Model Unavailable SARIn X-track Angle Error, Surface Model Unavailable SARIn X-track Angle Error, Surface Model Unavailab SARIn X-track Angle Error SARIn X-track Angle Error SARIn X-track Angle Error SARIn X-track Angle Error SARIn X-track Angle Error, Surface Model Unavailable SARIn X-track Angle Error SARIn X-track Angle Error, Surface Model Unavailable SARIn X-track Angle Error SARIn X-track Angle Error SARIn X-track Angle Error, Surface Model Unavailable SARIn X-track Angle Error SARIn X-track Angle Error SARIn X-track Angle Error

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 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 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 ecords 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 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 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 and a height error for Retracker 3 for one or more 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 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 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 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 records An ambiguous angle was detected for SARIn mode for one or more records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more 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 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 records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more 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 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 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 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 records An ambiguous angle was detected for SARIn mode for one or more records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more 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 records An ambiguous angle was detected for SARIn mode and no DEM or Slope Model was used for one or more 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 records An ambiguous angle was detected for SARIn mode for one or more records

| CS_OFFL_SIR_SIN_220180809T135738_20180809T135915_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more records  |
|---|---|---|
| CS_OFFL_SIR_SIN_220180809T143514_20180809T143942_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T144154_20180809T144239_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T144656_20180809T144831_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more records  |
| CS_OFFL_SIR_SIN_220180809T153240_20180809T153344_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T153423_20180809T153508_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T161542_20180809T161734_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T162558_20180809T162745_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T171153_20180809T171432_C001   | SARIn X-track Angle Error, Surface<br>Model Unavailable   | An ambiguous angle was detected for SARIn mode and no DEM or Slope<br>Model was used for one or more records  |
| CS_OFFL_SIR_SIN_220180809T175515_20180809T175634_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T175832_20180809T175919_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T180416_20180809T180642_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T184452_20180809T184528_C001   | SARIn X-track Angle Error, Surface<br>Model Unavailable   | An ambiguous angle was detected for SARIn mode and no DEM or Slope<br>Model was used for one or more records  |
| CS OFFL SIR SIN 2 20180809T193439 20180809T193600 C001  | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more  |
| C3_011 E_31(_3114_2201000091193439_201000091193000_C001   | of a an At addit Angle End  | records   |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001   | SARIn X-track Angle Error   | records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records  |
|   |   | An ambiguous angle was detected for SARIn mode for one or more  |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001   | SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more records<br>An ambiguous angle was detected for SARIn mode for one or more  |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001<br>CS_OFFL_SIR_SIN_220180809T194440_20180809T194609_C001  | SARIn X-track Angle Error<br>SARIn X-track Angle Error  | An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more  |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001<br>CS_OFFL_SIR_SIN_220180809T194440_20180809T194609_C001<br>CS_OFFL_SIR_SIN_220180809T211429_20180809T211748_C001   | SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error   | An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more   |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001<br>CS_OFFL_SIR_SIN_220180809T194440_20180809T194609_C001<br>CS_OFFL_SIR_SIN_220180809T211429_20180809T211748_C001<br>CS_OFFL_SIR_SIN_220180809T212311_20180809T212429_C001  | SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error                              | An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records   |
| CS_OFFL_SIR_SIN_220180809T193635_20180809T193840_C001<br>CS_OFFL_SIR_SIN_220180809T194440_20180809T194609_C001<br>CS_OFFL_SIR_SIN_220180809T211429_20180809T211748_C001<br>CS_OFFL_SIR_SIN_220180809T212311_20180809T212429_C001<br>CS_OFFL_SIR_SIN_220180809T225322_20180809T225641_C001 | SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error<br>SARIn X-track Angle Error | An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more<br>records<br>An ambiguous angle was detected for SARIn mode for one or more |

# 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   | 133          | 133             | 133       | 0            | 0          |
| SIR_LRM_2    | 133          | 133             | 133       | 0            | 0          |
| SIR_LRMI2_   | 133          | 133             | 133       | 0            | 0          |
| SIR_SAR_1B   | 104          | 104             | 104       | 0            | 0          |
| SIR_SAR_2    | 104          | 104             | 104       | 0            | 0          |
| SIR_SARI2_   | 104          | 104             | 104       | 0            | 0          |
| SIR_SIN_1B   | 103          | 103             | 103       | 0            | 0          |
| SIR_SIN_2    | 103          | 103             | 103       | 0            | 0          |
| SIR_SINI2    | 103          | 103             | 103       | 0            | 0          |
| SIR_GDR_2    | 14           | 14              | 14        | 0            | 0          |

# 6.1 QCC Errors

| Number of products with QCC errors:          | 0   |  |
|--|-----|--|
| 6.2 QCC Warnings                             |     |  |
| Number of QCC reports with warnings          | 0   |  |
| 6.2 Missing QCC Reports                      |     |  |
| Number of products with missing QCC reports: | 176 |  |