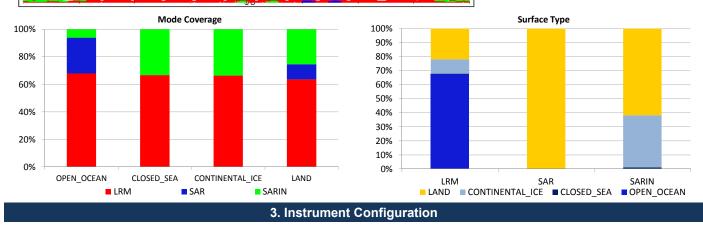


# IDEAS+ Daily Report for OFFLINE data:

<u>14/12/2016</u>

eport Production Date:	16-Jan-2017	Check	Status	
Report Production Date.		Server check: science-pds.cryosat.esa.int	Nominal	
Processor Used:	CryoSat Ice Processor	Server check: calval-pds.cryosat.esa.int	Nominal	
Processor used.		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	

2. Globa	Coverage	
Giobal Coverage - North Pole	Global Coverage - South Pole	
XXXX	Mode Coverage (%)	
Y Y TAADAAY		19.9
- A ALST AV V ASILATA	SAR	13.3
	SARIn	0.0



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

SIRAL instrument(s) in use: SIR

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: 0

#### 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

0

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

Number of products with errors.

#### 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: 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: 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:	104	

Product	Test Failed	Description
	<b>o</b>	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220161214T004531_20161214T005624_C001	0	There is a height and backscatter error for Retracker 2 for one or more records
CS OFFL SIR LRM 2 201612141010201 201612141011202 C001	0	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220161214T012741_20161214T015514_C001	<b>o</b>	There is a height and backscatter error for Retracker 2 for one or more records

CS OFFL SIR LRM 2 20161214T020316 20161214T020519 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T021846\_20161214T025121\_C001 CS OFFL SIR LRM 2 20161214T030716 20161214T031148 C001 CS OFFL SIR LRM 2 20161214T033534 20161214T033656 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T034247\_20161214T034542\_C001 CS OFFL SIR LRM 2 20161214T035756 20161214T040814 C001 CS OFFL SIR LRM 2 20161214T040920 20161214T043117 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T044729\_20161214T051250\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T051306\_20161214T051457\_C001 CS OFFL SIR LRM 2 20161214T053614 20161214T060947 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T061752\_20161214T062144\_C001 CS\_OFFL\_SIR\_LRM\_2\_20161214T062833\_20161214T070008\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T071633\_20161214T072713\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T073154\_20161214T073316\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T073319\_20161214T074919\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T080654\_20161214T082008\_C001 CS OFFL SIR LRM 2 20161214T082222 20161214T083553 C001 CS OFFL SIR LRM 2 20161214T090149 20161214T091213 C001 CS OFFL SIR LRM 2 20161214T091353 20161214T092800 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T095059\_20161214T095630\_C001 CS OFFL SIR LRM 2 20161214T100205 20161214T100600 C001 CS OFFL SIR LRM 2 20161214T100723 20161214T101427 C001 CS\_OFFL\_SIR\_LRM\_2\_20161214T104437\_20161214T110647\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T112134\_20161214T114000\_C001 CS OFFL SIR LRM 2 20161214T122154 20161214T124634 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T125418\_20161214T125743\_C001 CS OFFL SIR LRM 2 20161214T130136 20161214T131211 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T131749\_20161214T133349\_C001 CS OFFL SIR LRM 2 20161214T135759 20161214T141744 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T142849\_20161214T143649\_C001 CS OFFL SIR LRM 2 20161214T144125 20161214T151400 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T154910\_20161214T160343\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T162009\_20161214T164149\_C001 CS OFFL SIR LRM 2 20161214T171400 20161214T171408 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T171526\_20161214T171705\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T171738\_20161214T173045\_C001 CS OFFL SIR LRM 2 20161214T173232 20161214T174259 C001 CS OFFL SIR LRM 2 20161214T175932 20161214T183250 C001 CS OFFL SIR LRM 2 20161214T184845 20161214T185542 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T185601\_20161214T192015\_C001 CS OFFL SIR LRM 2 20161214T192951 20161214T193145 C001 CS OFFL SIR LRM 2 20161214T193842 20161214T200716 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T202901\_20161214T204452\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T205112\_20161214T205638\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T205840\_20161214T210214\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20161214T210828\_20161214T211103\_C001 CS OFFL SIR LRM 2 20161214T211814 20161214T213235 C001

Height Error (Retracker 2), Height Error (Retracker 3), 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), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) leight Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error (Retracker 2) Surface Model Unavailable Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error (Retracker 3), 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) Height Error (Retracker 2), Backscatter Error (Retracker 2) Surface Model Unavailable Height Error (Retracker 2), Height Error (Retracker 3), Backscatter Error Retracker 2) 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)

records

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 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 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 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 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 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 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 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 and a height error for Retracker 3 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 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 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 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 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

CS\_OFFL\_SIR\_LRM\_2\_\_20161214T213415\_20161214T213657\_C001 CS OFFL SIR LRM 2 20161214T221151 20161214T221658 C001 CS OFFL SIR LRM 2 20161214T221942 20161214T224321 C001 CS OFFL SIR LRM 2 20161214T224614 20161214T225502 C001 CS\_OFFL\_SIR\_LRM\_2\_20161214T225723\_20161214T232114\_C001 CS OFFL SIR LRM 2 20161214T235825 20161215T002152 C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T002600\_20161214T002627\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T002728\_20161214T002753\_C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T011515\_20161214T011635\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T011735\_20161214T011922\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T012524\_20161214T012626\_C001 CS OFFL SIR SIN 2 20161214T025503 20161214T025831 C001 CS OFFL SIR SIN 2 20161214T030359 20161214T030516 C001 CS OFFL SIR SIN 2 20161214T043411 20161214T043732 C001 CS OFFL SIR SIN 2 20161214T044247 20161214T044410 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T052420\_20161214T052622\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T061117\_20161214T061305\_C001 CS OFFL SIR SIN 2 20161214T062145 20161214T062254 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T070020\_20161214T070127\_C001 CS OFFL SIR SIN 2 20161214T070419 20161214T070526 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T074937\_20161214T075114\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T075702\_20161214T075705\_C001 CS OFFL SIR SIN 2 20161214T075844 20161214T080042 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T084223\_20161214T084440\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T092852\_20161214T093039\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T093720\_20161214T094413\_C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T101802\_20161214T102316\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T110758\_20161214T111101\_C001 CS OFFL SIR SIN 2 20161214T111458 20161214T111504 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T111741\_20161214T112013\_C001 CS OFFL SIR SIN 2 20161214T124729 20161214T124848 C001 CS OFFL SIR SIN 2 20161214T125744 20161214T125904 C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T142725\_20161214T142849\_C001 CS OFFL SIR SIN 2 20161214T143649 20161214T143750 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T160658\_20161214T160823\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T161338\_20161214T161641\_C001 CS OFFL SIR SIN 2 20161214T174648 20161214T174955 C001 CS OFFL SIR SIN 2 20161214T175239 20161214T175623 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T175634\_20161214T175735\_C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T184345\_20161214T184724\_C001 CS\_OFFL\_SIR\_SIN\_2\_20161214T192717\_20161214T192950\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T193146\_20161214T193356\_C001 CS OFFL SIR SIN 2 20161214T193645 20161214T193810 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T202226\_20161214T202344\_C001 CS OFFL SIR SIN 2 20161214T202734 20161214T202901 C001 CS OFFL SIR SIN 2 20161214T210214 20161214T210827 C001 CS OFFL SIR SIN 2 20161214T211104 20161214T211123 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T211550\_20161214T211730\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T220159\_20161214T220409\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20161214T220504\_20161214T220733\_C001 CS OFFL SIR SIN 2 20161214T224437 20161214T224614 C001

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

records

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 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 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 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 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 An ambiguous angle was detected for SARIn mode for one or more 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 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

CS\_OFFL\_SIR\_SIN\_2\_\_20161214T234115\_20161214T234600\_C001

SARIn X-track Angle Error SARIn X-track Angle Error, Surface Model Unavailable 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

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	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR_LRM_1B	161	161	161	0	0
SIR_LRM_2	161	161	161	0	0
SIR_LRMI2_	161	161	161	0	0
SIR_SAR_1B	109	109	109	0	0
SIR_SAR_2	109	109	109	0	0
SIR_SARI2_	109	109	109	0	0
SIR_SIN_1B	101	101	101	0	0
SIR_SIN_2	101	101	101	0	0
SIR_SINI2	101	101	101	0	0
SIR_GDR_2	15	15	15	0	0
CC Errors					

## 

Number of products with missing QCC reports: 83