

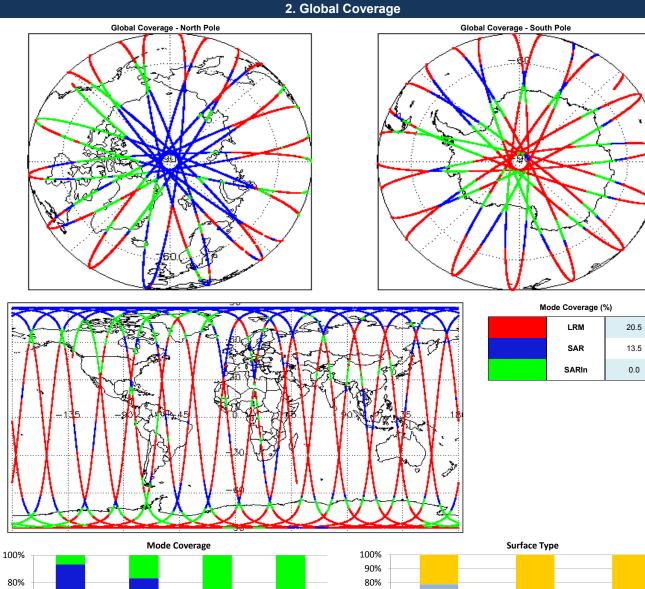
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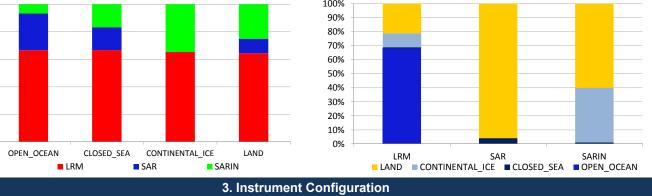
# IDEAS+ Daily Report for OFFLINE data:

<u>19/05/2018</u>

1. Overview				
10 Jun 2019	Check	Status		
19-3011-2016	Server check: science-pds.cryosat.esa.int	Nominal		
CryoSat Ice Processor	Server check: calval-pds.cryosat.esa.int	Nominal		
	Product Software Check	Nominal		
L1B and L2 OFFLINE Data	Product Format Check	Nominal		
	Product Header Analysis	See Section 4.2 and 5.2		
	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		
		19-Jun-2018   Check     CryoSat Ice Processor   Server check: science-pds.cryosat.esa.int     L1B and L2 OFFLINE Data   Product Software Check     Product Format Check   Product Format Check     Star Tracker Usage Check   L1B Calibration Usage Check     L1B & L2 Auxiliary Data File Usage Check   L1B & L2 Auxiliary Correction Error Check		

Mission / Instrument News			
18-May-2018	None		
19-May-2018	None		
20-May-2018	Nothing planned		





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

60%

40%

20%

0%

# 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: 1			
Product	Test Failed		
CS_OFFL_SIR_SAR_1B_20180519T004526_20180519T004529_C001	Percentage of processing errors detected greater than minimum acceptable threshold.		

#### 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:

### 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:

CS_OFFL_SIR_LRM_1B_20180518T235612_20180519T002450_C001 Echo error, TRK echo error Indicating a degraded of a degraded of the tracking echo has indicating echo has indicat	returned an error and the Rx1 Echo Error flag is set, 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:

han minimum acceptable threshold.

### 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.

100

Product
CS_OFFL_SIR_LRM_220180518T235612_20180519T002450_C001
CS_OFFL_SIR_LRM_220180519T003227_20180519T003409_C001
CS_OFFL_SIR_LRM_220180519T004712_20180519T012049_C001
CS_OFFL_SIR_LRM_220180519T014336_20180519T014726_C001
CS_OFFL_SIR_LRM_220180519T021042_20180519T021434_C001
CS_OFFL_SIR_LRM_220180519T022620_20180519T023536_C001
CS_OFFL_SIR_LRM_220180519T023822_20180519T030019_C001
CS_OFFL_SIR_LRM_220180519T031444_20180519T032652_C001
CS_OFFL_SIR_LRM_220180519T032840_20180519T033442_C001
CS_OFFL_SIR_LRM_220180519T040528_20180519T043853_C001
CS_OFFL_SIR_LRM_220180519T045733_20180519T052836_C001
CS_OFFL_SIR_LRM_220180519T054653_20180519T055617_C001
CS_OFFL_SIR_LRM_220180519T055929_20180519T060158_C001
CS_OFFL_SIR_LRM_220180519T060200_20180519T061819_C001
CS_OFFL_SIR_LRM_220180519T063518_20180519T064524_C001
CS_OFFL_SIR_LRM_220180519T065126_20180519T070412_C001
CS_OFFL_SIR_LRM_220180519T073055_20180519T074117_C001
CS_OFFL_SIR_LRM_220180519T074257_20180519T075712_C001
CS_OFFL_SIR_LRM_220180519T081642_20180519T082753_C001
CS_OFFL_SIR_LRM_220180519T082911_20180519T083503_C001
CS_OFFL_SIR_LRM_220180519T083747_20180519T084444_C001
CS_OFFL_SIR_LRM_220180519T091355_20180519T093607_C001
CS_OFFL_SIR_LRM_220180519T095039_20180519T101618_C001
CS_OFFL_SIR_LRM_220180519T104006_20180519T104044_C001
CS_OFFL_SIR_LRM_220180519T105053_20180519T111608_C001
CS_OFFL_SIR_LRM_220180519T113019_20180519T114115_C001
CS_OFFL_SIR_LRM_220180519T114653_20180519T120346_C001
CS_OFFL_SIR_LRM_220180519T122643_20180519T123334_C001
CS_OFFL_SIR_LRM_220180519T124001_20180519T124437_C001
CS_OFFL_SIR_LRM_220180519T130952_20180519T134321_C001
CS_0FFL_SIR_LRM_220180519T140830_20180519T140942_C001
CS_OFFL_SIR_LRM_220180519T141452_20180519T143438_C001
CS_OFFL_SIR_LRM_220180519T144859_20180519T151051_C001
CS_OFFL_SIR_LRM_220180519T151113_20180519T152303_C001
CS_OFFL_SIR_LRM_220180519T155240_20180519T161223_C001
CS_OFFL_SIR_LRM_220180519T161925_20180519T162141_C001
CS_OFFL_SIR_LRM_220180519T162849_20180519T170114_C001
CS_OFFL_SIR_LRM_220180519T171731_20180519T173623_C001
CS_OFFL_SIR_LRM_220180519T173655_20180519T175001_C001
CS_OFFL_SIR_LRM_220180519T175852_20180519T180049_C001
CS_OFFL_SIR_LRM_220180519T180747_20180519T182311_C001
CS_OFFL_SIR_LRM_220180519T182513_20180519T183434_C001
CS_OFFL_SIR_LRM_220180519T185656_20180519T185919_C001

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	Error (Retracker 2)

	Description
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
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er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
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or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
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er	There is a height and backscatter error for Retracker 2 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	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
er	There is a height and backscatter error for Retracker 2 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records
er	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
er	There is a height and backscatter error for Retracker 2 for one or more records
or	There is a height and backscatter error for Retracker 2 and a height error for Retracker 3 for one or more records
er	There is a height and backscatter error for Retracker 2 for one or more records

CS\_OFFL\_SIR\_LRM\_2\_\_20180519T190123\_20180519T191356\_C001 CS OFFL SIR LRM 2 20180519T193715 20180519T194013 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180519T194727\_20180519T200140\_C001 CS OFFL SIR LRM 2 20180519T204421 20180519T204601 C001 CS\_OFFL\_SIR\_LRM\_2\_20180519T204652\_20180519T204723\_C001 CS OFFL SIR LRM 2 20180519T204846 20180519T211224 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180519T211524\_20180519T212351\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180519T212700\_20180519T215200\_C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180519T220132\_20180519T220209\_C001 CS OFFL SIR LRM 2 20180519T222533 20180519T223435 C001 CS OFFL SIR LRM 2 20180519T224009 20180519T225112 C001 CS OFFL SIR LRM 2 20180519T230549 20180519T233100 C001 CS\_OFFL\_SIR\_LRM\_2\_\_20180519T235805\_20180520T001350\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T012417\_20180519T012733\_C001 CS OFFL SIR SIN 2 20180519T013254 20180519T013413 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T030306\_20180519T030625\_C001 CS OFFL SIR SIN 2 20180519T031149 20180519T031313 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T034949\_20180519T035027\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T035225\_20180519T035525\_C001 CS OFFL SIR SIN 2 20180519T043939 20180519T044132 C001 CS OFFL SIR SIN 2 20180519T045004 20180519T045140 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T052855\_20180519T053005\_C001 CS\_OFFL\_SIR\_SIN\_2\_20180519T053324\_20180519T053424\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T061844\_20180519T062023\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T062603\_20180519T062609\_C001 CS OFFL SIR SIN 2 20180519T062739 20180519T062947 C001 CS OFFL SIR SIN 2 20180519T070723 20180519T070959 C001 CS OFFL SIR SIN 2 20180519T071123 20180519T071338 C001 CS OFFL SIR SIN 2 20180519T075756 20180519T075942 C001 CS OFFL SIR SIN 2 20180519T080501 20180519T080507 C001 CS OFFL SIR SIN 2 20180519T080625 20180519T081318 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T093737\_20180519T094020\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T094359\_20180519T094405\_C001 CS OFFL SIR SIN 2 20180519T094724 20180519T094925 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T111627\_20180519T111802\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T112647\_20180519T112813\_C001 CS OFFL SIR SIN 2 20180519T125637 20180519T125801 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T130346\_20180519T130409\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T130548\_20180519T130701\_C001 CS OFFL SIR SIN 2 20180519T143603 20180519T143728 C001 CS OFFL SIR SIN 2 20180519T144239 20180519T144543 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T161626\_20180519T161925\_C001 CS OFFL SIR SIN 2 20180519T162141 20180519T162659 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T171238\_20180519T171652\_C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T180049\_20180519T180222\_C001 CS OFFL SIR SIN 2 20180519T180552 20180519T180724 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T185130\_20180519T185244\_C001 CS OFFL SIR SIN 2 20180519T185426 20180519T185656 C001 CS\_OFFL\_SIR\_SIN\_2\_\_20180519T193119\_20180519T193715\_C001

Height Error (Retracker 2), Height Error (Retracker 3), 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), 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), 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) Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Backscatter Error (Retracker 2) 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

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 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 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 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 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 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 ambigu ous 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 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

CS_OFFL_SIR_SIN_220180519T194452_20180519T194636_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180519T203053_20180519T203314_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_220180519T211333_20180519T211524_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180519T212351_20180519T212550_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180519T220433_20180519T220451_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_220180519T225312_20180519T225449_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180519T225612_20180519T225736_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220180519T230152_20180519T230443_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	164	164	164	0	0
SIR_LRM_2	162	162	162	0	0
SIR_LRMI2_	162	162	162	0	0
SIR_SAR_1B	103	103	103	0	0
SIR_SAR_2	103	103	103	0	0
SIR_SARI2_	103	103	103	0	0
SIR_SIN_1B	104	104	104	0	0
SIR_SIN_2	104	104	104	0	0
SIR_SINI2	104	104	104	0	0
SIR_GDR_2	1	1	1	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:	188	