



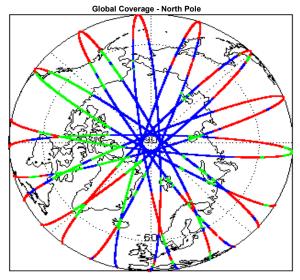
## 1. Overview

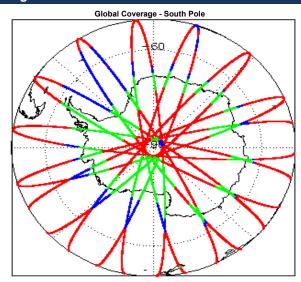
Report Production Date:	23-May-2016	
Processor Used:	CryoSat Ice Processor	
Data Used:	L1B and L2 OFFLINE Data	

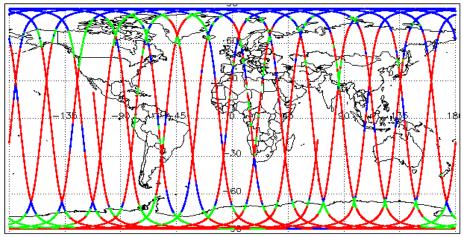
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2 and 5.2
Star Tracker Usage Check	Nominal
L1B Calibration Usage Check	Nominal
L1B & L2 Auxiliary 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

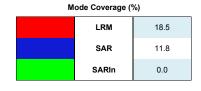
Mission / Instru	ment News
22-Apr-2016	None
23-Apr-2016	None
24-Apr-2016	Nothing planned

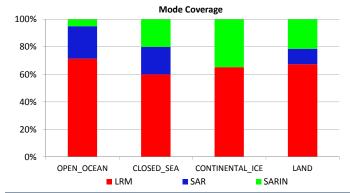
## 2. Global Coverage

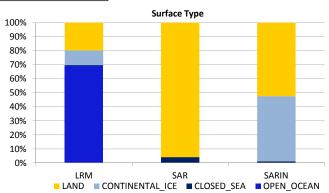












# 3. Instrument Configuration

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

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

Product	Test Failed
CS_OFFL_SIR_SAR_1B_20160423T073557_20160423T073558_C001	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OFFL_SIR_SAR_1B_20160423T140136_20160423T140138_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:

#### 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:

### 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:

Product	Test Failed
CS_OFFL_SIR_SAR_220160423T140136_20160423T140138_C001	Percentage of processing errors detected greater than 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: 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:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_220160422T234630_20160423T001212_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_220160423T001928_20160423T002253_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T004257_20160423T005804_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_220160423T012144_20160423T015211_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_220160423T015826_20160423T020159_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T020512_20160423T023932_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_220160423T025344_20160423T025431_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_220160423T030424_20160423T030547_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_220160423T032105_20160423T032210_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_2_20160423T034438_20160423T040656_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_220160423T040942_20160423T041851_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_220160423T044231_20160423T044739_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_220160423T044746_20160423T045550_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_220160423T045738_20160423T051021_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_220160423T051418_20160423T051748_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T052351_20160423T052945_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_220160423T052955_20160423T055645_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_220160423T061406_20160423T062107_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_220160423T062129_20160423T064526_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_220160423T065501_20160423T065654_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T070347_20160423T072115_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_220160423T072550_20160423T073250_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_220160423T075428_20160423T080957_C001	Height Error (Retracker 2), Backscatter Error (Retracker 2) Height Error (Retracker 2), Height Error	There is a height and backscatter error for Retracker 2 for one or more records
CS_OFFL_SIR_LRM_220160423T081618_20160423T082756_C001	(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_220160423T083346_20160423T083609_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T084253_20160423T085743_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_220160423T085922_20160423T091020_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_220160423T093614_20160423T094324_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_220160423T094447_20160423T094757_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_220160423T094803_20160423T094935_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_220160423T095220_20160423T100842_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_220160423T101132_20160423T102012_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T102230_20160423T104608_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_220160423T112429_20160423T114747_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_220160423T115336_20160423T115807_C001	Surface Model Unavailable	No DEM or Slope Model was used for the location of one or more records
CS_OFFL_SIR_LRM_220160423T120122_20160423T122651_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_220160423T125723_20160423T130953_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_220160423T134020_20160423T140136_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_220160423T140139_20160423T140723_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_220160423T141742_20160423T141843_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_220160423T143110_20160423T150554_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_220160423T152821_20160423T152926_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_220160423T155440_20160423T155842_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_220160423T161121_20160423T162000_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_220160423T162246_20160423T164509_C001	Height Error (Retracker 2), Backscatter Error (Retracker 2)	There is a height and backscatter error for Retracker 2 for one or more records
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CS OFFL SIR LRM 2 20160423T165815 20160423T171120 C001	Height Error (Retracker 2), Backscatter	There is a height and backscatter error for Retracker 2 for one or more
C3_OFFL_SIR_LRIVI_2201004231103013_201004231171120_C001	Error (Retracker 2) Height Error (Retracker 2), Height Error	records  There is a height and hackgootter error for Petrocker 2, and a height error.
CS_OFFL_SIR_LRM_220160423T171307_20160423T172540_C001	(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_220160423T175111_20160423T182337_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_220160423T184159_20160423T191206_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_220160423T193250_20160423T194518_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_220160423T194722_20160423T200300_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_220160423T203553_20160423T204739_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_220160423T212259_20160423T212542_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_220160423T212721_20160423T214151_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_220160423T215533_20160423T222920_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_220160423T223139_20160423T223228_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_220160423T225719_20160423T232126_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_220160423T233430_20160424T000346_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 SIN 2 20160423T001246 20160423T001401 C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T001910_20160423T001912_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_2_20160423T002254_20160423T002410_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_220160423T011252_20160423T011340_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_220160423T015225_20160423T015348_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T020200_20160423T020314_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T033203_20160423T033328_C001	SARIn X-track Angle Error	records
CS_OFFL_SIR_SIN_220160423T033849_20160423T034156_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T043016_20160423T043046_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_220160423T051146_20160423T051417_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T051748_20160423T052122_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T065226_20160423T065500_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T065654_20160423T065942_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T070130_20160423T070318_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T074730_20160423T074851_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20160423T075310_20160423T075419_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20160423T082757_20160423T083345_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T083609_20160423T083639_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T084102_20160423T084241_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T092155_20160423T092256_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_220160423T092700_20160423T092911_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T100950_20160423T101131_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_2_20160423T102013_20160423T102217_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_2_20160423T110612_20160423T111100_C001	SARIn X-track Angle Error, Surface	records An ambiguous angle was detected for SARIn mode and no DEM or Slope
CS_OFFL_SIR_SIN_220160423T114925_20160423T115049_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_220160423T115236_20160423T115336_C001	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T115807_20160423T120027_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more
	SARIn X-track Angle Error	records An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_2_20160423T132858_20160423T133252_C001	-	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_2_20160423T133845_20160423T134011_C001	SARIn X-track Angle Error SARIn X-track Angle Error, Surface	records  An ambiguous angle was detected for SARIn mode and no DEM or Slope
CS_OFFL_SIR_SIN_220160423T141955_20160423T142021_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_220160423T150846_20160423T151159_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T151716_20160423T151826_C001	SARIn X-track Angle Error	records  An ambiguous angle was detected for SARIn mode for one or more
CS_OFFL_SIR_SIN_220160423T164628_20160423T165041_C001	SARIn X-track Angle Error	records
CS_OFFL_SIR_SIN_220160423T165615_20160423T165740_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T173548_20160423T173949_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records
CS_OFFL_SIR_SIN_220160423T182408_20160423T182541_C001	SARIn X-track Angle Error	An ambiguous angle was detected for SARIn mode for one or more records