

1. Overview

Report Production Date:	08-Mar-2013
Data Used:	OFFLINE L1B and L2 Science Data

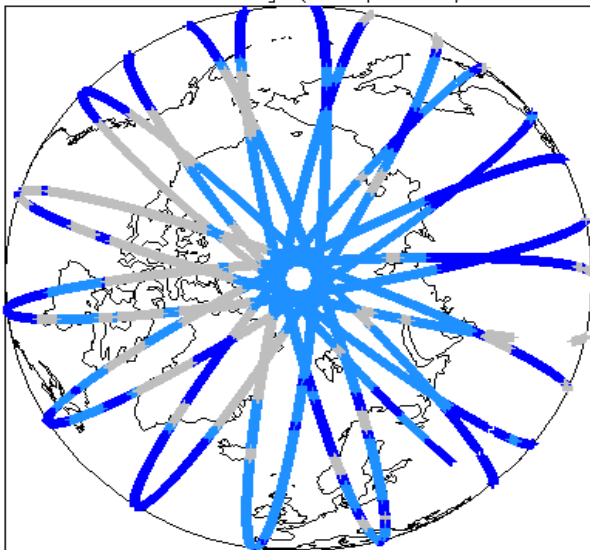
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage	See Section 5.3
Auxiliary Correction Check	See Section 4.4 and 5.4
Measurement Data Set Check	See Section 4.5 and 5.5

Mission / Instrument News

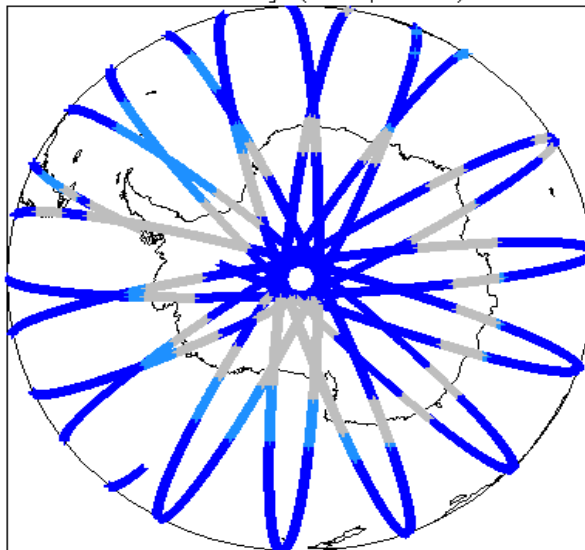
05-Feb-2013	None
06-Feb-2013	None
07-Feb-2013	Nothing planned

2. Global Coverage

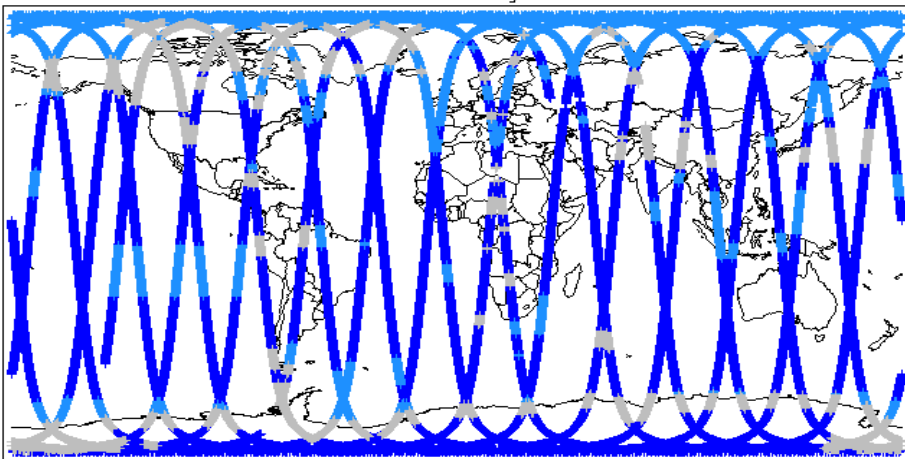
Global Coverage (north pole view)



Global Coverage (south pole view)



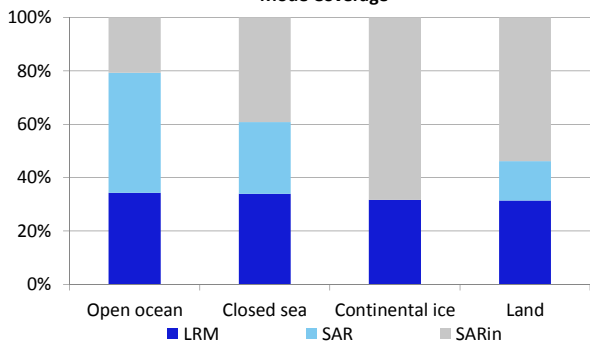
Global Coverage



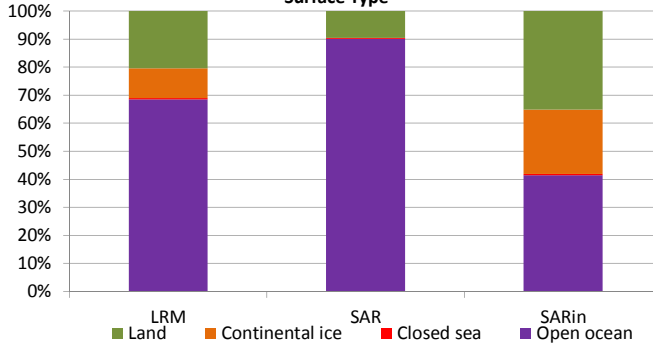
Mode Coverage(%)

	LRM	65.70
	SAR	20.36
	SARin	13.75

Mode Coverage



Surface Type



3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A
Star Tracker(s) in use:	Star Tracker 1

4. Level 1B Data Quality Check

4.1 L1 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: 0

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 L1B Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors wrt a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors: 0

4.4 L1B Flagged Auxiliary Correction Error Check

Each product is checked to spot auxiliary corrections flagged by the ground-station processing chain as missing or containing errors

Number of products with errors: 3

Product	Test Failed
CS_OFFL_SIR_LRM_1B_20130206T055257_20130206T060034_B001	Dynamic atmosphere correction error
CS_OFFL_SIR_LRM_1B_20130206T115831_20130206T121718_B001	Dynamic atmosphere correction error
CS_OFFL_SIR_LRM_1B_20130206T175749_20130206T180722_B001	Dynamic atmosphere correction error

4.5 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag word (field 14) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 4

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20130206T013857_20130206T013920_B001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_LRM_1B_20130206T173959_20130206T175547_B001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_SAR_1B_20130206T175548_20130206T175749_B001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_SIN_1B_20130206T013846_20130206T013857_B002	Attitude correction missing	The attitude has not been corrected

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 binary product file (.DBL)

Number of products with errors: 0

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 wrt a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct

Number of products with errors: 1

Product	AUX File	Comment
CS_OFFL_SIR_GDR_2A_20130206T225528_20130207T003442_B001	CS_OPER_AUX_ORBDOR_20130205T215525_20130207T002325_0001	Coverage missing for intervals [2013-02-07T00:23:25, 2013-02-07T00:34:42]

5.4 L2 Flagged Auxiliary Correction Error Check

Each product is checked to spot auxiliary corrections flagged by the ground-station processing chain as missing or containing errors

Number of products with errors: 3

Product	Test Failed
CS_OFFL_SIR_LRM_2_20130206T055257_20130206T060034_B001	Dynamic atmosphere correction error
CS_OFFL_SIR_LRM_2_20130206T115831_20130206T121718_B001	Dynamic atmosphere correction error
CS_OFFL_SIR_LRM_2_20130206T175749_20130206T180722_B001	Dynamic atmosphere correction error

5.5 L2 Measurement Quality Flag Check

CryoSat L2 data includes a quality flag word (field 43) for each 20-Hz measurement record. The bit value of this flag is an assessment of the measurement quality by the ground-segment processing chains

Presently, there are several common data Quality Flag errors raised by the Level 2 products which are either expected due to changes made to the IPF processor in Baseline B or else are due to known issues with the data processors. The investigation of the known issues are on-going and are due to be resolved with the next update of the Level 2 processors. All common known issues are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

Freeboard Error: This Quality Flag is correctly set in all products as this parameter is currently not provided in the L2 products and the Freeboard value is presently set to the default value of -9999.

SARin x-track angle error: Currently there is an on-going investigation into the high number of errors from the 'SARin x-track Error' Quality Flag over Antarctica.

Height error and Backscatter error: It has been noted that the number of errors arising from the 'Backscatter Error' and 'Height Error' Quality Flag is much higher than expected over land areas and this is currently part of an on-going investigation by expert teams.

Number of products with errors: 1

Product	Test Failed	Description
CS_OFFL_SIR_SAR_2A_20130206T014016_20130206T014151_B001	Peakiness error	There is an error in the peakiness derivation

6. QCC Check

The QCC is a CryoSat facility that 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.

Nb. There is currently a discrepancy between the number of QCC reports and the number of products reported. This is a known issue and investigation is on-going.

Product type	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR_GDR_2A	18	16	0	16	0
SIR_LRM_1B	166	170	167	3	0
SIR_LRM_2	168	169	2	167	0
SIR_SAR_1B	147	159	0	159	0
SIR_SAR_2A	104	114	7	107	0
SIR_SIN_1B	105	118	0	118	0
SIR_SIN_2	110	113	1	112	0

6.1 QCC Errors

Number of products with QCC errors: 0

6.2 Missing QCC Reports

Number of products with missing QCC reports: 33

Product name
CS_OFFL_SIR_LRM_1B_20130206T001950_20130206T005415_B001
CS_OFFL_SIR_LRM_1B_20130206T010009_20130206T010531_B001
CS_OFFL_SIR_LRM_1B_20130206T011205_20130206T011428_B001
CS_OFFL_SIR_LRM_1B_20130206T011544_20130206T011946_B001
CS_OFFL_SIR_LRM_1B_20130206T012108_20130206T012549_B001
CS_OFFL_SIR_LRM_1B_20130206T012612_20130206T012742_B001
CS_OFFL_SIR_LRM_1B_20130206T012927_20130206T013113_B001
CS_OFFL_SIR_LRM_1B_20130206T013256_20130206T013516_B001
CS_OFFL_SIR_LRM_1B_20130206T013645_20130206T013702_B001
CS_OFFL_SIR_LRM_1B_20130206T013803_20130206T013810_B001
CS_OFFL_SIR_LRM_1B_20130206T013841_20130206T013845_B001
CS_OFFL_SIR_LRM_2_20130206T001950_20130206T005415_B001
CS_OFFL_SIR_LRM_2_20130206T010009_20130206T010531_B001
CS_OFFL_SIR_LRM_2_20130206T010707_20130206T011159_B001
CS_OFFL_SIR_LRM_2_20130206T011205_20130206T011428_B001
CS_OFFL_SIR_LRM_2_20130206T011544_20130206T011946_B001
CS_OFFL_SIR_LRM_2_20130206T012108_20130206T012549_B001
CS_OFFL_SIR_LRM_2_20130206T012612_20130206T012742_B001
CS_OFFL_SIR_LRM_2_20130206T012927_20130206T013113_B001
CS_OFFL_SIR_LRM_2_20130206T013256_20130206T013516_B001
CS_OFFL_SIR_LRM_2_20130206T013645_20130206T013702_B001
CS_OFFL_SIR_LRM_2_20130206T013803_20130206T013810_B001
CS_OFFL_SIR_LRM_2_20130206T013841_20130206T013845_B001
CS_OFFL_SIR_SIN_1B_20130206T005650_20130206T010009_B001
CS_OFFL_SIR_SIN_2_20130206T005650_20130206T010009_B001
CS_OFFL_SIR_SIN_2_20130206T010532_20130206T010650_B001
CS_OFFL_SIR_SIN_2_20130206T011946_20130206T012108_B001
CS_OFFL_SIR_SIN_2_20130206T012549_20130206T012612_B001
CS_OFFL_SIR_SIN_2_20130206T012743_20130206T012927_B001
CS_OFFL_SIR_SIN_2_20130206T013120_20130206T013122_B001
CS_OFFL_SIR_SIN_2_20130206T013248_20130206T013250_B001
CS_OFFL_SIR_SIN_2_20130206T013810_20130206T013841_B001
CS_OFFL_SIR_SIN_2_20130206T013846_20130206T013857_B001