

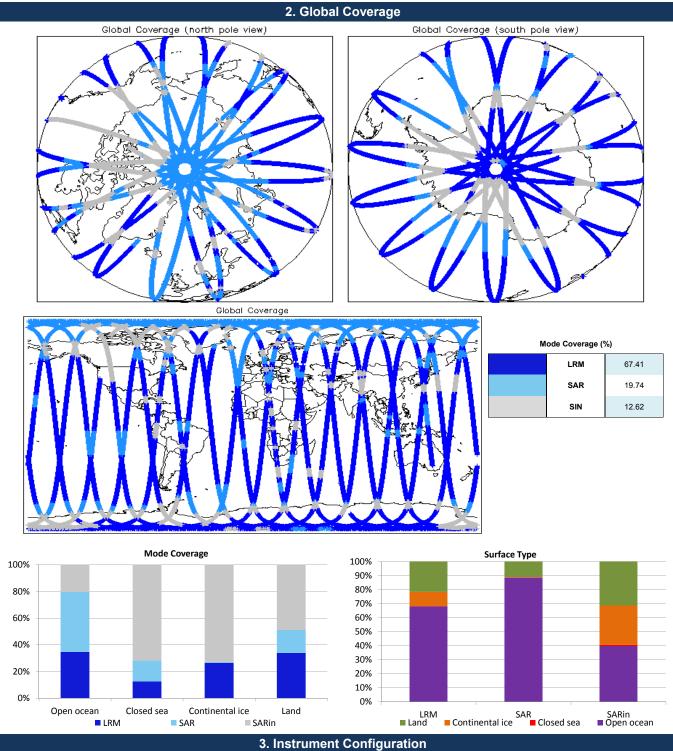
IDEAS Daily Report for OFFLINE data:

<u>19/01/2014</u>



1. Overview				
Depart Dreduction Deter	20-Feb-2014	Check	Status	
Report Production Date:		Server check: science-pds.cryosat.esa.int	Nominal	
Data Used:	OFFLINE L1B and L2 Science Data	Server check: calval-pds.cryosat.esa.int	Nominal	
Data Used:		Product Software Check	Nominal	
		Product Format Check	Nominal	
		Product Header Analysis	Nominal	
		Auxiliary Data File Usage	Nominal	
		Auxiliary Correction Check	See Section 4.4 and 5.4	
		Measurement Data Set Check	See Section 4.5	

Mission / Ins	Mission / Instrument News			
18-Jan-2014	None			
19-Jan-2014	None			
20-Jan-2014	Nothing planned			



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 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 L1B Auxilary 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

Number of products with errors:

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

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20140118T235112_20140119T000739_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_LRM_1B_20140119T112943_20140119T120020_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_SAR_1B_20140119T055738_20140119T060307_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_SIN_1B_20140119T175857_20140119T180028_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).

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: 2

Product	Test Failed	Description
CS_OFFL_SIR_LRM_1B_20140119T014707_20140119T015926_B001	TRK echo error	The tracking echo has returned an error
CS_OFFL_SIR_LRM_1B_20140119T082442_20140119T082719_B001	TRK echo error	The tracking echo has returned an error

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: 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: 0

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

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_LRM_220140118T235112_20140119T000739_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_LRM_220140119T112943_20140119T120020_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_SAR_2A_20140119T055738_20140119T060307_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).
CS_OFFL_SIR_SIN_220140119T175857_20140119T180028_B001	Dynamic atmosphere correction error	Due to a configuration issue with the handling of Auxiliary Files, products crossing a 6h time boundary are missing the Dynamic Atmospheric correction (CRYO-IDE-161).

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:

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.

All

Product type	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR_GDR_2A	16	0	0	0	0
SIR_LRM_1B	174	0	0	0	0
SIR_LRM_2	173	0	0	0	0
SIR_SAR_1B	127	0	0	0	0
SIR_SAR_2A	124	0	0	0	0
SIR_SIN_1B	110	0	0	0	0
SIR_SIN_2	111	0	0	0	0

6.1 QCC Errors

Number of products with QCC errors: 0

6.2 Missing QCC Reports

Number of products with missing QCC reports: