

**1. Overview**

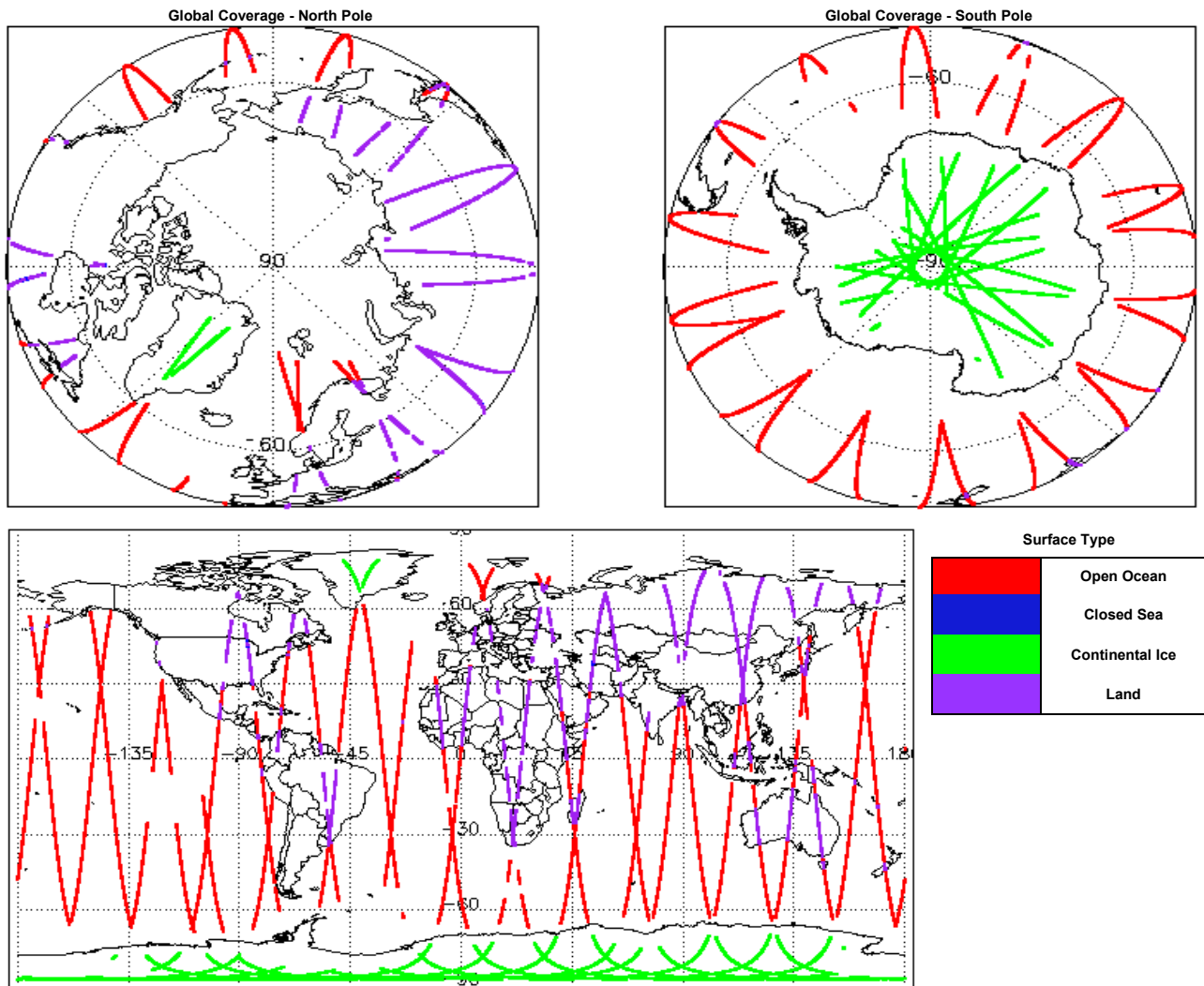
<b>Report Production Date:</b>	18-Apr-2016
<b>Processor Used:</b>	CryoSat Ice Processor
<b>Data Used:</b>	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data

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
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 6.4
Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8

**Mission / Instrument News**

14-Apr-2016	None
15-Apr-2016	None
16-Apr-2016	Nothing planned

**2. Global Coverage**



**3. Instrument Configuration**

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

<b>SIRAL instrument(s) in use:</b>	SIRAL - A
<b>Star Tracker(s) in use:</b>	Star Tracker 1

**4. Level 0 Data Quality Check**

**4.1 L0 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

## 4.2 L0 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 processing chain.

Number of products with errors: 5

Product	Test Failed
CS_OPER_SIR1SAR_0__20160415T213528_20160415T213707_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20160415T160346_20160415T160445_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20160415T222917_20160415T223039_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20160415T220039_20160415T220733_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20160415T224215_20160415T224613_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.

## 5. Level 1B FDM Data Quality Check

### 5.1 L1B FDM 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 L1B FDM 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 L1B FDM 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: 8

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20160415T123829_20160415T124507_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T142104_20160415T142207_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T160040_20160415T160101_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T160101_20160415T160146_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T160338_20160415T160346_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T160447_20160415T160841_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T162107_20160415T162946_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20160415T192414_20160415T192603_C002	No Star Tracker file used in the processing of this product

### 5.4 L1B FDM Calibration Usage Check

Each product is checked in order to ensure the necessary calibration files have been used in processing.

Number of products with errors: 0

### 5.5 L1B FDM 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

### 5.6 L1B FDM 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: 0

### 5.7 L1B FDM 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.

Number of products with errors: 8

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20160415T123829_20160415T124507_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T142104_20160415T142207_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T160040_20160415T160101_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T160101_20160415T160146_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T160338_20160415T160346_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T160447_20160415T160841_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T162107_20160415T162946_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20160415T192414_20160415T192603_C002	Attitude correction missing	The attitude has not been corrected

## 6. Level 2 FDM Data Quality Check

### 6.1 L2 FDM 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

## 6.2 L2 FDM 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

## 6.3 L2 FDM 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

## 6.4 L2 FDM Auxiliary Correction Error Check

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

Number of products with errors: 31

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20160414T235607_20160415T002154_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T010432_20160415T010456_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T013118_20160415T020151_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T041927_20160415T042819_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T045200_20160415T050656_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T053339_20160415T060615_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T071339_20160415T072946_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T073542_20160415T074322_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T080414_20160415T081943_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T082157_20160415T083653_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T090909_20160415T092519_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T094715_20160415T095905_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T100334_20160415T101836_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T103217_20160415T105633_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T113046_20160415T115753_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T135008_20160415T141345_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T142630_20160415T142827_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T144118_20160415T151535_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T160447_20160415T160841_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T163232_20160415T165453_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T170758_20160415T172106_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T172254_20160415T173526_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T175957_20160415T183316_C002	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T194149_20160415T195027_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T195206_20160415T201245_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T202927_20160415T203921_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T204539_20160415T205719_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T211947_20160415T213527_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T221042_20160415T222916_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T230705_20160415T233107_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20160415T234424_20160416T001115_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records

## 6.5 L2 FDM Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag (field 8) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 8

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20160415T123829_20160415T124507_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T142104_20160415T142207_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T160040_20160415T160101_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T160101_20160415T160146_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T160338_20160415T160346_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T160447_20160415T160841_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T162107_20160415T162946_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20160415T192414_20160415T192603_C002	Attitude correction missing	The attitude has not been corrected

## 6.6 L2 FDM Range Measurement Check

CryoSat L2 data includes a CFI (field 17) and OCOG (field 22) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.





