

### 1. Overview

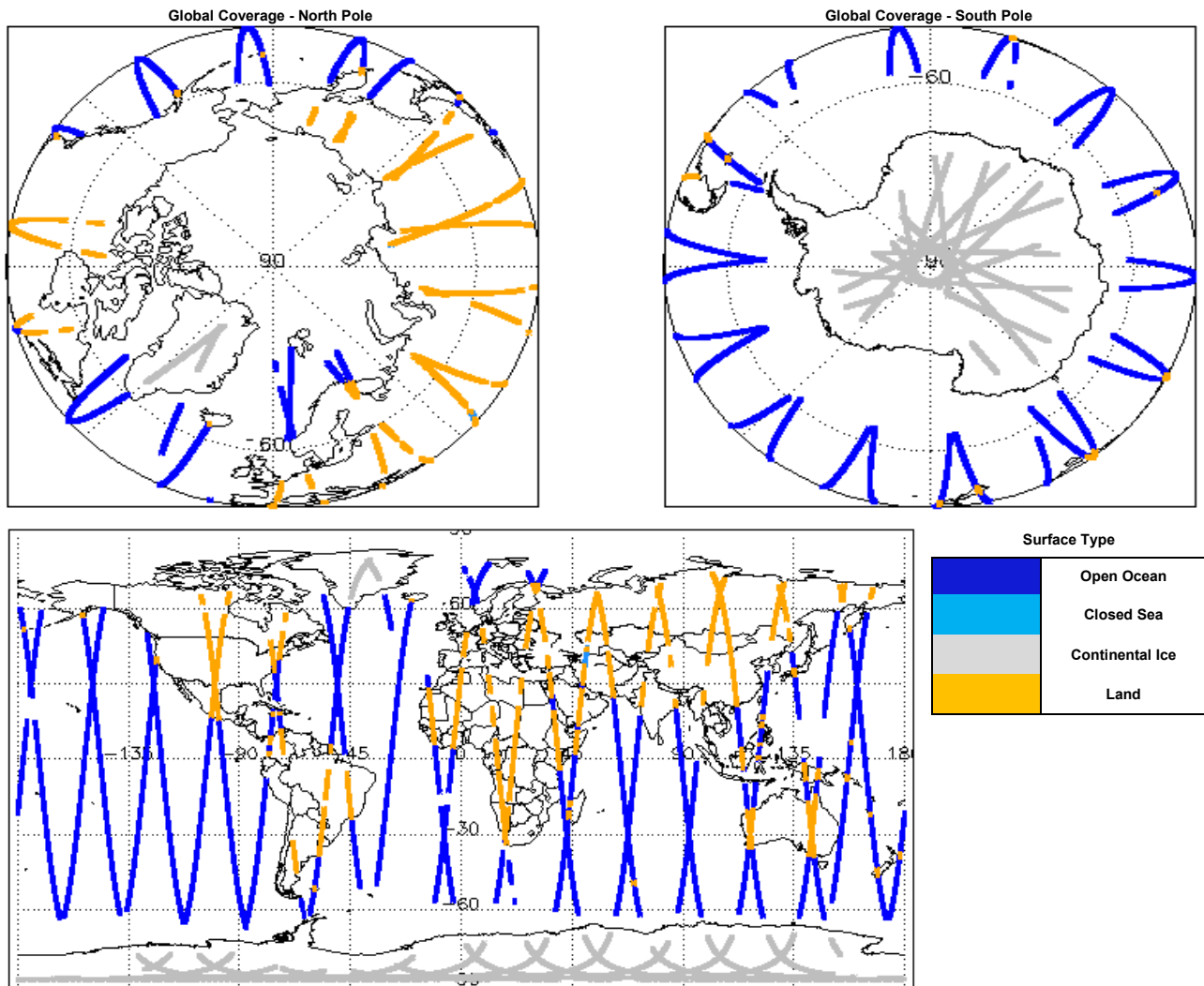
|                         |   |
|-------------------------|---|
| Report Production Date: | 04-Jan-2016   |
| Processor Used:         | CryoSat Ice Processor                                 |
| Data Used:              | L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data |

| 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, 6.6, 6.7 and 6.8 |

#### Mission / Instrument News

|             |                 |
|-------------|-----------------|
| 30-Dec-2015 | None            |
| 31-Dec-2015 | None            |
| 01-Jan-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      |
| Star Tracker(s) in use:     | 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: 1

| Product  | Test Failed   |
|--|---|
| CS_OPER_SIR1SAR_0_20151231T122302_20151231T123001_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: 3

| Product   | Test Failed   |
|---|---|
| CS_OFFL_SIR_FDM_1B_20151231T180926_20151231T181234_C001 | No Star Tracker file used in the processing of this product |
| CS_OFFL_SIR_FDM_1B_20151231T194853_20151231T194948_C001 | No Star Tracker file used in the processing of this product |
| CS_OFFL_SIR_FDM_1B_20151231T212803_20151231T212858_C001 | 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: 3

| Product   | Test Failed                 | Description                         |
|---|-----------------------------|-------------------------------------|
| CS_OFFL_SIR_FDM_1B_20151231T180926_20151231T181234_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20151231T194853_20151231T194948_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20151231T212803_20151231T212858_C001 | 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: 39

| Product  | Test Failed                                      | Description  |
|--|--|--|
| CS_OFFL_SIR_FDM_2_20151230T235540_20151231T000256_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_20151231T001636_20151231T001658_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_20151231T001837_20151231T002953_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 |





