# IDEAS+ Daily Report for NRT data: 25/06/2015

## 1. Overview

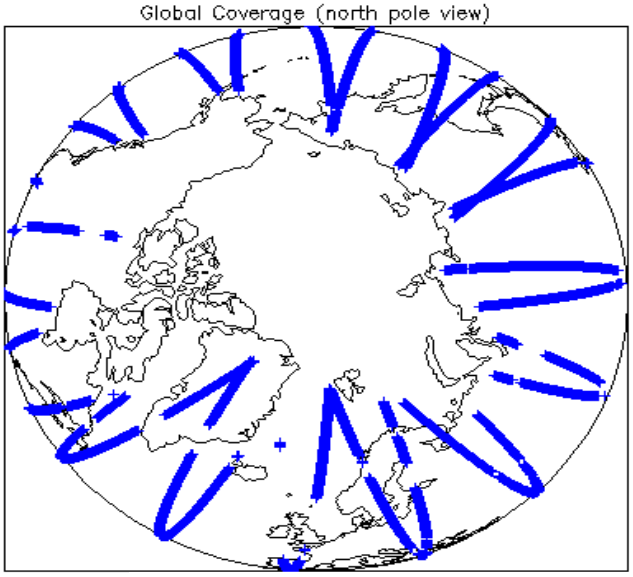
| | |
|---|---|
| **Report Production Date:** | 26-Jun-2015 |
| **Data Used:** | L1 and L2 Fast Delivery Marine Mode (FDM), and CAL Data |

| 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 | Nominal |
| Correction Error Flags | Nominal |
| Measurement Confidence Flags | See Sections 5.5, 6.5, 6.6 and 6.8 |

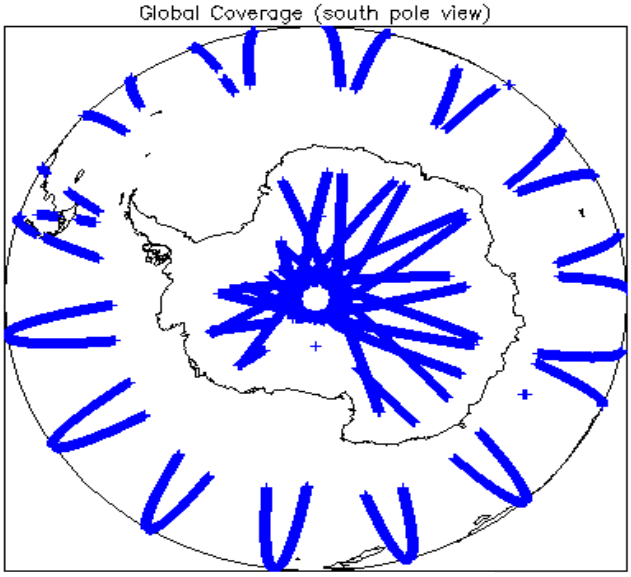
| Mission / Instrument News | |
|---|---|
| 24-Jun-2015 | None |
| 25-Jun-2015 | None |
| 26-Jun-2015 | Nothing planned |

## 2. Global Coverage

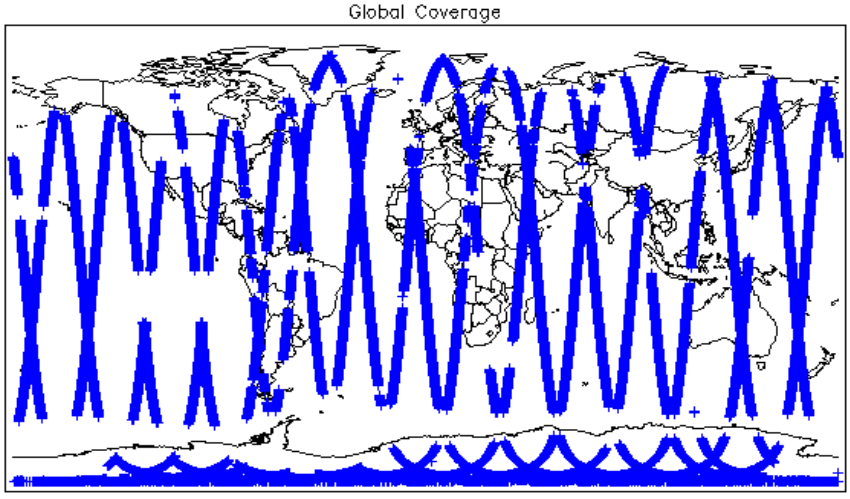
Global Coverage (north pole view)



Global Coverage (south pole view)



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 1B Calibration Data Quality Check

### 4.1 L1 CAL 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 L1 CAL 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:** 0

### 4.3 L1 CAL 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 L1 CAL Measurement Confidence Flags

CryoSat Cal1 and Cal2 data includes a measurement confidence flag word (field 11) for each measurement record. The bit value of this flag indicates any problems when set.

**Number of products with errors:** 0

## 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 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

### 5.4 L1B FDM Correction Error Flags

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:** 0

### 5.5 L1B FDM Measurement Confidence Flags

CryoSat L1B data includes a measurement confidence flag word (field 18) for each measurement record. The bit value of this flag indicates any problems when set.

**Attitude Correction Missing:** In Baseline-C all FDM products are missing Attitude Correction as star tracker data are not available in time for processing. This is a known issue and will be fixed in future releases.

**Number of products with errors:** 19

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_FDM_1B_20150625T025721_20150625T030304_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T044008_20150625T044528_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T045917_20150625T053146_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T053905_20150625T054433_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T054740_20150625T055221_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T055518_20150625T060434_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T060506_20150625T061006_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T061149_20150625T061439_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T061609_20150625T061730_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T061741_20150625T061822_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T062259_20150625T062302_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T062318_20150625T062608_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T063808_20150625T064827_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T064953_20150625T071141_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T071805_20150625T071909_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T071912_20150625T072320_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T072728_20150625T075325_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T075339_20150625T075529_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_1B_20150625T181203_20150625T181611_C001 | Echo error | The Echo Rx1 Error flag is set, indicating a degraded raw echo |

## 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 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 wrt 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 Correction Error Flags

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:** 0

## 6.5 L2 FDM Measurement Confidence Flags

CryoSat L2 data includes a quality flag word (field 8) for each 20-Hz measurement record. The bit value of this flag is an assessment of the measurement quality by the processing chain.

**Attitude Correction Missing:** In Baseline-C all FDM products are missing Attitude Correction as star tracker data are not available in time for processing. This is a known issue and will be fixed in future releases.

**Number of products with errors:** 18

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_FDM_2__20150625T025721_20150625T030304_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T044008_20150625T044528_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T045917_20150625T053146_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T053905_20150625T054433_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T054740_20150625T055221_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T060506_20150625T061006_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T061149_20150625T061439_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T061609_20150625T061730_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T061741_20150625T061822_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T062259_20150625T062302_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T062318_20150625T062608_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T063808_20150625T064827_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T064953_20150625T071141_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T071805_20150625T071909_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T071912_20150625T072320_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T072728_20150625T075325_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T075339_20150625T075529_C001 | Attitude correction missing | The attitude has not been corrected |
| CS_OFFL_SIR_FDM_2__20150625T181203_20150625T181611_C001 | Echo error | The Echo Rx1 Error flag is set, indicating a degraded raw echo |

## 6.6 L2 FDM Range Measurement Flags

Each product is checked to detect range measurements flagged by the processing chain as missing or containing errors.

**Number of products with errors:** 3

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_FDM_2__20150625T004950_20150625T010505_C001 | OCOG Retracked Range Flag | The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records. |
| CS_OFFL_SIR_FDM_2__20150625T180756_20150625T180857_C001 | OCOG Retracked Range Flag | The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records. |
| CS_OFFL_SIR_FDM_2__20150625T233145_20150625T233712_C001 | OCOG Retracked Range Flag | The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records. |

## 6.7 L2 FDM SWH and Backscatter Measurement Flags

Each product is checked to detect parameters related to SWH and sigma0 that are flagged by the processing chain as missing or containing errors.

**Number of products with errors:** 0

## 6.8 L2 FDM Geophysical Measurement Flags

Each product is checked to detect geophysical measurements flagged by the processing chain as missing or containing errors.

**Number of products with errors:** 4

| Product | Test Failed | Description |
|---|---|---|
| CS_OFFL_SIR_FDM_2__20150625T004950_20150625T010505_C001 | Ocean Retracking Quality Flag | The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records. |
| CS_OFFL_SIR_FDM_2__20150625T114221_20150625T115247_C001 | Ocean Retracking Quality Flag | The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records. |
| CS_OFFL_SIR_FDM_2__20150625T180756_20150625T180857_C001 | Ocean Retracking Quality Flag | The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records. |
| CS_OFFL_SIR_FDM_2__20150625T221941_20150625T225618_C001 | Ocean Retracking Quality Flag | The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records. |

# 7. 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.

| Product type | Nb. Products | Nb. QCC Reports | Nb. Valid | Nb. Warnings | Nb. Errors |
|---|---|---|---|---|---|
| SIR_FDM_1B | 181 | 0 | 0 | 0 | 0 |
| SIR_FDM_2 | 179 | 0 | 0 | 0 | 0 |

## 7.1 QCC Errors

**Number of QCC reports with errors:** 0

## 7.2 Missing QCC Reports

**Number of products with missing QCC reports:** All