

### 1. Overview

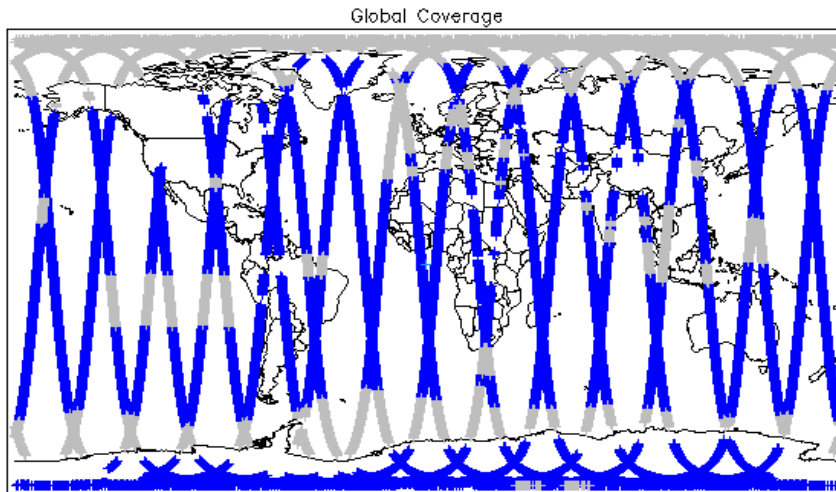
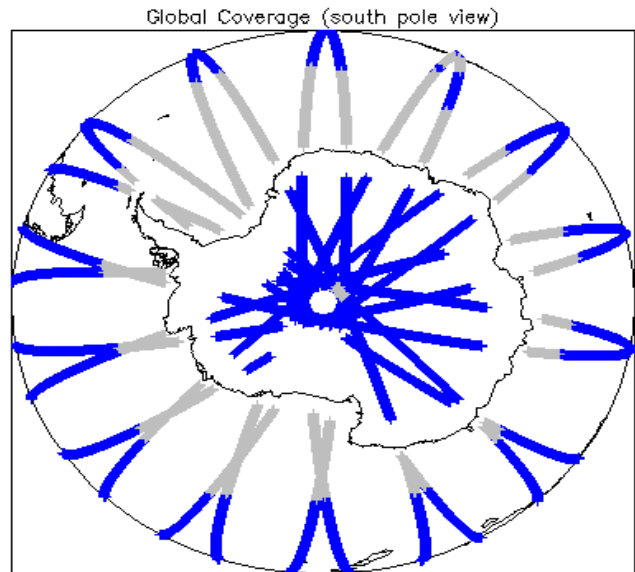
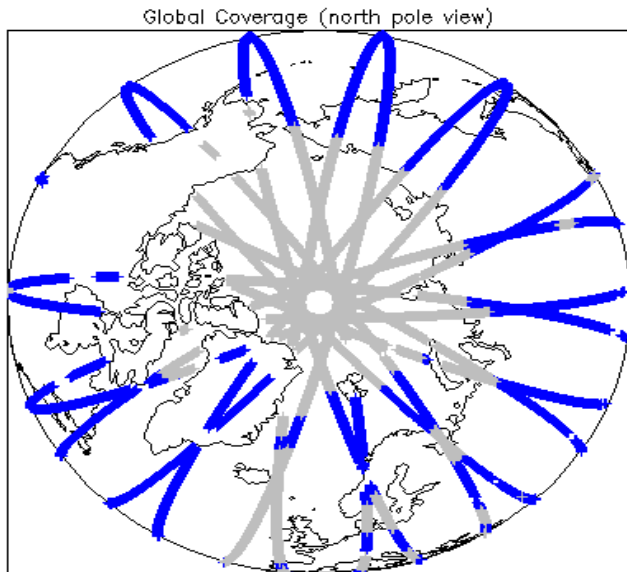
|                         |  |
|-------------------------|--|
| Report Production Date: | 20-Oct-2014  |
| Data Used:              | Intermediate Ocean Products (IOP)<br>L1B and L2 Science Data |

| 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 Check           | Nominal                           |
| Auxiliary Correction Error Check          | Nominal                           |
| Measurement Confidence Data Check         | See Section 4.5, 4.6, 5.5 and 5.6 |

#### Mission / Instrument News

|             |                 |
|-------------|-----------------|
| 14-Oct-2014 | None            |
| 15-Oct-2014 | None            |
| 16-Oct-2014 | Nothing planned |

### 2. Global Coverage



| Mode Coverage |     |
|---------------|-----|
|               | LRM |
|               | SAR |

### 3. Instrument Configuration

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

|                             |           |
|-----------------------------|-----------|
| SIRAL instrument(s) in use: | SIRAL - A |
|-----------------------------|-----------|

### 4. IOP 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 binary 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 performed 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 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

### 4.4 L1B 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: 0

### 4.5 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 12) 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_IOP_1B_20141015T021638_20141015T022321_B001 | Power scaling error | There has been an error in the scaling of the L1B waveform |
| CS_OFFL_SIR_IOP_1B_20141015T141414_20141015T142246_B001 | Power scaling error | There has been an error in the scaling of the L1B waveform |

### 4.6 L1B Waveform Group Data Check

CryoSat L1B data includes a waveform data flag (field 65) for each measurement record. The bit value of this flag indicates any problems when set.

**Loss of Echo Flag:** This flag is currently set for a large number of products over land, indicating that the tracking echo is missing.

Number of products with errors: 44

## 5. IOP 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 performed 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 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

### 5.4 L2 Measurement Confidence Data Check

CryoSat L2 data includes a quality flag (field 14) for each 20-Hz measurement record. The bit value of this flag is an assessment of the measurement quality by the processing chains.

Number of products with errors: 0

### 5.5 L2 Range Measurement Check

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

**Ocean Range Averaging Status Flag:** This flag is currently set for products over land and sea ice, but this is to be expected.

**Ice Range Averaging Status Flag:** This flag is currently set for some products over land and continental ice.

Number of products with errors: 226

### 5.6 L2 SWH and Backscatter Measurement Check

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

**SWH Averaging Status Flag:** This flag is currently set for products over land and sea ice, but this is to be expected.

**Ocean Backscatter Averaging Status Flag:** This flag is currently set for products over land and sea ice, but this is to be expected.

**Ice Backscatter Averaging Status Flag:** This flag is currently set for some products over land and continental ice.

Number of products with errors: 199