

## IDEAS+ Daily Report for IOP data:

## 29/10/2016

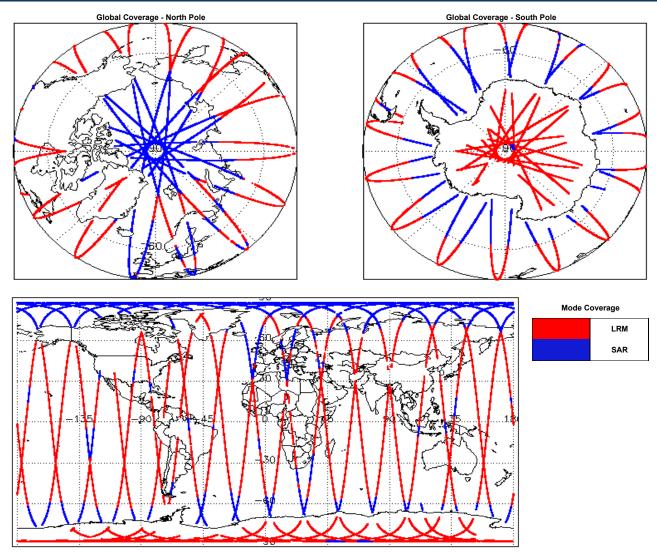


| 1. Overview             |   |   |                                   |
|-------------------------|---|---|-----------------------------------|
|                         |   | Check                                     | Status                            |
| Report Production Date: | ate: 31-Oct-2016  | Server check: science-pds.cryosat.esa.int | Nominal                           |
| Processor Used:         | ed: CryoSat Ocean Processor                                       | Server check: calval-pds.cryosat.esa.int  | Nominal                           |
| Processor Usea:         |   | Product Software Check                    | Nominal                           |
| Data Used:              | sed: Intermediate Ocean Products (IOP)<br>L1B and L2 Science Data | Product Format Check                      | Nominal                           |
| Data Oseu.              |   | Product Header Analysis                   | Nominal                           |
|                         |   | Auxiliary Data File Usage Check           | Nominal                           |
|                         |   | Auxiliary Correction Error Check          | See Section 5.4                   |
|                         |   | Measurement Confidence Data Check         | See Section 4.6, 5.6, 5.7 and 5.8 |

# Mission / Instrument News

- 28-Oct-2016 IOP data missing from 0000 0600 due to missing Auxiliary files at the time of processing 29-Oct-2016 None
- 30-Oct-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

# 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:

### 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.

| 4.3 L1B Auxilary Data File Usage Check  |  |  |  |
|---|--|--|--|
| Each product is checked for missing Data Set Descriptors with respect to a pr   | re-determined baseline and also to   | o check the validity of Auxiliary Data Files is correct.   |  |
| Number of products with errors: 0   |  |  |  |
| I.4 L1B Auxiliary Correction Error Check  |  |  |  |
| CryoSat L1B data includes a correction error flag (field 60) for each measurement record. The bit value of this flag indicates any problems when set.   |  |  |  |
| 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  | ue of this flag indicates any problems when set.   |  |
| lumber of products with errors: 0   |  |  |  |
| 1.6 L1B Waveform Group Data Check   |  |  |  |
|   | The bit set of the fit |  |  |
| ryoSat L1B data includes a waveform data flag (field 65) for each measuren  |  | ay mucates any problems when set.  |  |
| Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| lumber of products with errors: 16  | Test Failed  | Description  |  |
|   | ·  | Description<br>The tracking echo is missing for one or more records  |  |
| lumber of products with errors: 16 Product  | Test Failed  | •  |  |
| Number of products with errors:         16           Product  | Test Failed<br>Loss of Echo  | The tracking echo is missing for one or more records   |  |
| Image: Second system         16           Product         SS_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030833_B001   | Test Failed<br>Loss of Echo<br>Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Image: Number of products with errors:         16           Product         05           CS_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001         05           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030833_B001         05           CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001         05   | Test Failed<br>Loss of Echo<br>Loss of Echo<br>Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Image: Number of products with errors:         16           Product         Image: Number of Products   | Test Failed<br>Loss of Echo<br>Loss of Echo<br>Loss of Echo<br>Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Image: Number of products with errors:         16           Product         Image: Number of Products         Image: Number of Products         Number of Product   | Test Failed         Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Number of products with errors:         16           Product         S2_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001           S2_OFFL_SIR_IOP_1B_20161029T030324_20161029T030833_B001         S2_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001           S2_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         S2_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001           S2_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         S2_OFFL_SIR_IOP_1B_20161029T044223_20161029T061205_B001  | Test Failed         Loss of Echo   | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Number of products with errors:         16           Product         S_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001           CS_OFFL_SIR_IOP_1B_20161029T03024_20161029T030833_B001         CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001           CS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001           CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         CS_OFFL_SIR_IOP_1B_20161029T060803_20161029T061205_B001           CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062938_B001         CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062938_B001  | Test Failed         Loss of Echo   | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Number of products with errors:         16           Product         S2_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030833_B001         CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001           CS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001           CS_OFFL_SIR_IOP_1B_20161029T064033_20161029T045028_B001         CS_OFFL_SIR_IOP_1B_20161029T06203_20161029T062938_B001           CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062938_B001         CS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001   | Test Failed         Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Humber of products with errors:         16           Product         50           CS_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001         53           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030333_B001         53           CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001         53           CS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         53           CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         53           CS_OFFL_SIR_IOP_1B_20161029T06205_20161029T062038_B001         53           CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062938_B001         53           CS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         53           CS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         53   | Test Failed         Loss of Echo   | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Humber of products with errors:         16           Product         50           CS_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001         50           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030333_B001         50           CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001         50           CS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         50           CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         50           CS_OFFL_SIR_IOP_1B_20161029T060803_20161029T061205_B001         50           CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062038_B001         50           CS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         50           CS_OFFL_SIR_IOP_1B_20161029T103618_20161029T104150_B001         50           CS_OFFL_SIR_IOP_1B_20161029T112008_20161029T112652_B001         50   | Test Failed         Loss of Echo   | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Humber of products with errors:         16           Product         ScoFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001           CS_OFFL_SIR_IOP_1B_20161029T030324_20161029T030333_B001         CS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001           CS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         CS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001           CS_OFFL_SIR_IOP_1B_20161029T0620803_20161029T061205_B001         CS_OFFL_SIR_IOP_1B_20161029T0620803_20161029T062038_B001           CS_OFFL_SIR_IOP_1B_20161029T062105_20161029T076202_B001         CS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075202_B001           CS_OFFL_SIR_IOP_1B_20161029T103618_20161029T104150_B001         CS_OFFL_SIR_IOP_1B_20161029T112008_20161029T112652_B001           CS_OFFL_SIR_IOP_1B_20161029T114744_20161029T114924_B001         CS_OFFL_SIR_IOP_1B_20161029T114744_20161029T114924_B001   | Test Failed         Loss of Echo   | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Jamme         Jamme           Product         5           SS_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001         5           SS_OFFL_SIR_IOP_1B_20161029T03024_20161029T030833_B001         5           SS_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001         5           SS_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         5           SS_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         5           SS_OFFL_SIR_IOP_1B_20161029T062033_20161029T062938_B001         5           SS_OFFL_SIR_IOP_1B_20161029T062105_20161029T062938_B001         5           SS_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         5           SS_OFFL_SIR_IOP_1B_20161029T103618_20161029T104150_B001         5           SS_OFFL_SIR_IOP_1B_20161029T112008_20161029T1142652_B001         5           SS_OFFL_SIR_IOP_1B_20161029T114744_20161029T114924_B001         5           SS_OFFL_SIR_IOP_1B_20161029T114744_20161029T114924_B001         5   | Test Failed         Loss of Echo  | The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records<br>The tracking echo is missing for one or more records   |  |
| Image: Number of products with errors:         16           roduct         S_OFFL_SIR_IOP_1B_20161029T004402_20161029T004543_B001         S_OFFL_SIR_IOP_1B_20161029T030324_20161029T030333_B001         S_OFFL_SIR_IOP_1B_20161029T032020_20161029T032159_B001         S_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         S_OFFL_SIR_IOP_1B_20161029T043122_20161029T043321_B001         S_OFFL_SIR_IOP_1B_20161029T044223_20161029T045028_B001         S_OFFL_SIR_IOP_1B_20161029T062033_20161029T062938_B001         S_OFFL_SIR_IOP_1B_20161029T062035_20161029T062938_B001         S_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         S_OFFL_SIR_IOP_1B_20161029T074745_20161029T075620_B001         S_OFFL_SIR_IOP_1B_20161029T103618_20161029T104150_B001         S_OFFL_SIR_IOP_1B_20161029T112008_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T1103618_20161029T1104150_B001         S_OFFL_SIR_IOP_1B_20161029T114744_20161029T110455_B001         S_OFFL_SIR_IOP_1B_20161029T114744_20161029T1104552_B001         S_OFFL_SIR_IOP_1B_20161029T114744_20161029T1165620_B001         S_OFFL_SIR_IOP_1B_20161029T1171800_20161029T174955_B001         S_OFFL_SIR_IOP_1B_20161029T1171800_20161029T174955_B001         S_OFFL_SIR_IOP_1B_20161029T171800_20161029T174955_B001         S_OFFL_SIR_IOP_1B_20161029T171800_20161029T174955_B001         S_OFFL_SIR_IOP_1B_20161029T171800_20161029T174955_B001         S_OFFL_SIR_IOP_ | Test Failed         Loss of Echo  | The tracking echo is missing for one or more records           The tracking echo is missing for one or more records |  |

### 5. IOP Level 2 Data Quality Check

The tracking echo is missing for one or more records

### 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:

#### 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

Loss of Echo

#### 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.

Wind Model File Usage: This file is currently not included in all L2 products.

CS\_OFFL\_SIR\_IOP\_1B\_20161029T230326\_20161029T232023\_B001

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

Currently, there are two common auxiliary correction errors raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

Sea State Bias Error: The error value is currently set for products over land and sea ice, but this is to be expected.

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Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

| Product   | Test Failed   | Description   |
|---|---|---|
| CS_OFFL_SIR_IOP_220161028T235518_20161029T000935_B001 | Fauilibrium Long Period Ocean Tide  | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records                     |
| CS_OFFL_SIR_IOP_220161029T012101_20161029T012811_B001 | For Local Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records                     |
| CS_OFFL_SIR_IOP_220161029T013306_20161029T014051_B001 | Total Geocentric Ocean Tide (FES), Non-   | There is an error with the Total Geocentric Ocean Tide height (solution 1:<br>GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean<br>Tide height for one or more records |
| CS_OFFL_SIR_IOP_220161029T030324_20161029T030833_B001 | Equilibrium Long Period Ocean Tide  | more records  |
| CS_OFFL_SIR_IOP_220161029T040416_20161029T043122_B001 | Equilibrium Long Period Ocean Tide  | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records                     |

| CS_OFFL_SIR_IOP_220161029T043122_20161029T043321_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
|---|---|---|
| CS_OFFL_SIR_IOP_220161029T043846_20161029T044137_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T061407_20161029T061557_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T080155_20161029T080906_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T094919_20161029T100244_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T105759_20161029T111358_B001 | Fotal Geocentric Ocean Tide (FES), Non-                                       | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T112008_20161029T112652_B001 |   | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T113727_20161029T114744_B001 | Fouilibrium Long Period Ocean Tide  | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T122316_20161029T123420_B001 | Total Geocentric Ocean Tide (FES)   | There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records   |
| CS_OFFL_SIR_IOP_220161029T143656_20161029T144702_B001 | Foulibrium Long Period Ocean Tide   | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T180456_20161029T180851_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T194328_20161029T195054_B001 | Fotal Geocentric Ocean Tide (FES), Non-                                       | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T214322_20161029T215627_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T221455_20161029T222943_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |
| CS_OFFL_SIR_IOP_220161029T222943_20161029T223145_B001 | Total Geocentric Ocean Tide (FES)   | There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records   |
| CS_OFFL_SIR_IOP_220161029T223145_20161029T224106_B001 | Fotal Geocentric Ocean Tide (FES), Non-                                       | There is an error with the Total Geocentric Ocean Tide height (solution 2:<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one or<br>more records |

### 5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag (field 14) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set. Number of products with errors: 0

#### 5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean (field 25) and Ice (field 30) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set. Currently, there are two common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

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 products over land, but this is to be expected. 33

| Product   | Test Failed                | Description  |
|---|----------------------------|--|
| CS_OFFL_SIR_IOP_220161029T003348_20161029T004214_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T021249_20161029T021446_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T021535_20161029T022028_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T035216_20161029T035247_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T035456_20161029T040054_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T053403_20161029T053925_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T071256_20161029T071406_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T071412_20161029T071819_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T084802_20161029T085304_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T085310_20161029T085317_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T085317_20161029T085324_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T085324_20161029T085635_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T103208_20161029T103215_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T103215_20161029T103221_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T103221_20161029T103233_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T103239_20161029T103409_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T120611_20161029T121112_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T121137_20161029T121146_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |

| CS_OFFL_SIR_IOP_220161029T121153_20161029T121255_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
|---|----------------------------|---|
| CS_OFFL_SIR_IOP_220161029T134649_20161029T135029_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T135035_20161029T135044_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T135050_20161029T135354_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T152431_20161029T152943_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T152949_20161029T153317_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T170430_20161029T171016_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T171039_20161029T171218_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T184357_20161029T184909_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T202553_20161029T202811_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T220522_20161029T220719_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T220853_20161029T221222_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T225913_20161029T230055_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T234345_20161029T234643_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
| CS_OFFL_SIR_IOP_220161029T234650_20161029T235123_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records. |
|   |                            |   |

### 5.7 L2 SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH Averaging Status flag (field 49) and an Ocean (field 55) and Ice (field 61) Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are three common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

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 products over land, but this is to be expected. 26

| Product   | Test Failed                      | Description  |
|---|----------------------------------|--|
| CS_OFFL_SIR_IOP_220161029T003348_20161029T004214_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T021249_20161029T021446_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T021535_20161029T022028_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T035216_20161029T035247_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T035456_20161029T040054_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T053403_20161029T053925_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T071256_20161029T071406_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T084802_20161029T085304_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T085310_20161029T085317_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T085324_20161029T085635_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T103215_20161029T103221_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T103239_20161029T103409_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T121153_20161029T121255_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T134649_20161029T135029_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T135035_20161029T135044_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T135050_20161029T135354_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T152431_20161029T152943_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T152949_20161029T153317_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T170430_20161029T171016_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T171039_20161029T171218_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T184357_20161029T184909_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T202553_20161029T202811_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220161029T220522_20161029T220719_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T220853_20161029T221222_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T234345_20161029T234643_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220161029T234650_20161029T235123_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |

### 5.8 L2 Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

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Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.