

## IDEAS+ Daily Report for IOP data:

## <u>17/03/2017</u>



| Report Production Date: | 20-Mar-2017  | Check                                     | Status                            |  |
|-------------------------|--|---|-----------------------------------|--|
|                         |  | Server check: science-pds.cryosat.esa.int | Nominal                           |  |
| Processor Used:         | CryoSat Ocean Processor                                      | Server check: calval-pds.cryosat.esa.int  | Nominal                           |  |
|                         |  | Product Software Check                    | Nominal                           |  |
| Data Used:              | Intermediate Ocean Products (IOP)<br>L1B and L2 Science Data | Product Format Check                      | Nominal                           |  |
|                         |  | 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 |  |

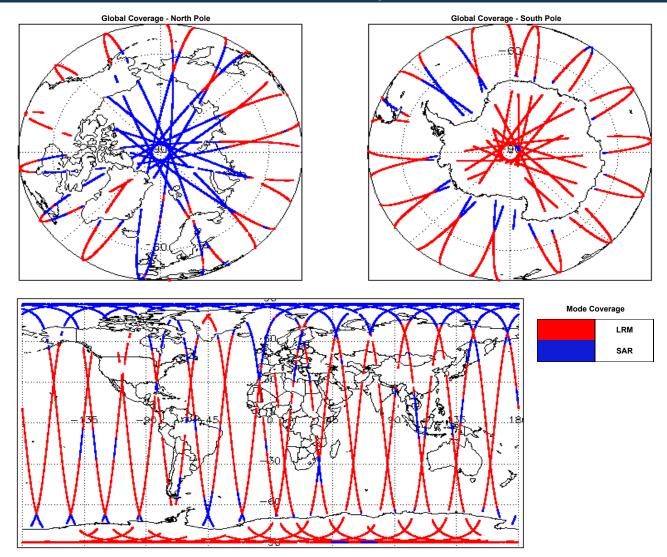
### Mission / Instrument News

 16-Mar-2017
 SIRAL unavailability on 16-Mar-2017 from 04:24:56 to 06:37:03 due to a planned orbit manoeuvre.

 17-Mar-2017
 None

18-Mar-2017 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.

| Each product is checked for missing Data Set Descriptors with respect to a pr  | e-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   |   |  |
| CryoSat L1B data includes a correction error flag (field 60) for each measurer   | nent record. The bit value of this flag indicate  | s 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 of this fla   | ag indicates any problems when set.  |
| Number of products with errors: 0  |   |  |
| 4.6 L1B Waveform Group Data Check  |   |  |
| CryoSat L1B data includes a waveform data flag (field 65) for each measuren  | nent record. The bit value of this flag indicates   | s any problems when set.   |
| Loss of Echo Flag: This flag is currently set for products over land, but this is  | -   |  |
| Number of products with errors: 12   |   |  |
| Product  | Test Failed   | Description  |
| CS_OFFL_SIR_IOP_1B_20170317T004930_20170317T005816_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T010343_20170317T011127_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T031035_20170317T032701_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T042157_20170317T042840_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T092405_20170317T092840_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T101520_20170317T101657_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T101658_20170317T105059_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T124518_20170317T125243_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T142502_20170317T142547_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T163830_20170317T163838_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T222952_20170317T223040_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_IOP_1B_20170317T223229_20170317T224017_B001  | Loss of Echo  | The tracking echo is missing for one or more records   |
| -  | OP Level 2 Data Quality C   | h a a la   |
| lumber of products with errors: 0  |   |  |
| 5.2 L2 Product Header Analysis   |   |  |
|  | d CDU in order to identify any inconsistensia   | s and/or errors raised by the ground-segment processing chain.   |
| -or all products, a series of pre-defined checks are performed on the MPH an   | In SPH In order to identify any inconsistencie  |  |
|  |   |  |
| Number of products with errors: 0  | a Sen in order to identify any inconsistence  |  |
| Number of products with errors:       0         5.3 L2 Auxiliary Data File Usage Check   |   |  |
| 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 product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product is checked for missing Dat   |   | validity of Auxiliary Data Files is correct.   |
| 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 pr           Wind Model File Usage: This file is currently not included in all L2 products.  |   | validity of Auxiliary Data Files is correct.   |
| Sumber 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 pr           Wind Model File Usage: This file is currently not included in all L2 products.  |   | validity of Auxiliary Data Files is correct.   |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0  |   | validity of Auxiliary Data Files is correct.   |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check  | e-determined baseline and also to check the   | validity of Auxiliary Data Files is correct.   |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are checked.  | e-determined baseline and also to check the<br>necked for the default error value (32767).  |  |
| 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 priving Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are check         Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional issues which may arise for the followed by a table highlighting any additional and the followed by a table highlighting any additional and the followed by a table highlighting any additional and the followed by a table highlighting any additiona  | e-determined baseline and also to check the<br>lecked for the default error value (32767).<br>a Level 2 products which are expected due<br>rom this test.   |  |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are check         Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land and another sea state Bias Error.  | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>Is Level 2 products which are expected dur<br>from this test.<br>and sea ice, but this is to be expected.   | e to surface type. All common flags are summarised in the list below,  |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are ch         Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a set of the se  | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>Is Level 2 products which are expected dur<br>from this test.<br>and sea ice, but this is to be expected.   | e to surface type. All common flags are summarised in the list below,  |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are ch         Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a set of the se  | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>Is Level 2 products which are expected dur<br>from this test.<br>and sea ice, but this is to be expected.   | e to surface type. All common flags are summarised in the list below,  |
| 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 provide the Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are of Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error: The error value is currently set for products over land a futimetric Wind Speed Error is the error value is currently set for products over land a futimetric Wind Speed Error is the error value is currently set for products over land a futimetris with errors:   | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>Is Level 2 products which are expected dur<br>from this test.<br>and sea ice, but this is to be expected.   | e to surface type. All common flags are summarised in the list below,<br>d.  |
| Aumber 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 provide the Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products or land a Witmetric Wind Speed Error: The error value is currently set for products or manber of products with errors:         22         Product  | e-determined baseline and also to check the<br>lecked for the default error value (32767).<br>a Level 2 products which are expected due<br>rom this test.<br>and sea ice, but this is to be expected.<br>rer land and sea ice, but this is to be expecte  | e to surface type. All common flags are summarised in the list below,<br>d.<br><u>Description</u>  |
| Aumber 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 pr Vind Model File Usage: This file is currently not included in all L2 products. Number of products with errors: 0  5.4 L2 Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error: The error value is currently set for products over land a Altimetric Sea State Bias Error Sea State Bias Error: The error v | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>a Level 2 products which are expected due<br>rom this test.<br>and sea ice, but this is to be expected.<br>ver land and sea ice, but this is to be expected.<br>Test Failed<br>Total Geocentric Ocean Tide (FES), N   | e to surface type. All common flags are summarised in the list below,<br>d.  |
| 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 provide the set of products is checked for missing Data Set Descriptors with respect to a provide of products with errors:         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a Autimetric Wind Speed Error: The error value is currently set for products over land a Autimetric Wind Speed Error: The error value is currently set for products over land a Autimetric Sea State Bias [10P_2_20170317T004930_20170317T005816_B001         CS_OFFL_SIR_IOP_2_20170317T025226_20170317T025705_B001  | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>De Level 2 products which are expected due<br>rom this test.<br>and sea ice, but this is to be expected.<br>ver land and sea ice, but this is to be expected<br>Test Failed<br>Total Geocentric Ocean Tide (FES), N<br>Equilibrium Long Period Ocean Tide   | e to surface type. All common flags are summarised in the list below,<br>d.<br>on-<br>FES) and the Non-equilibrium Long Period Ocean Tide height (solution<br>more records<br>There is an error with the Total Geocentric Ocean Tide height for one of<br>There is an error with the Total Geocentric Ocean Tide height (solution<br>FES) for one or more records  |
| 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 pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are cherolitoge by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land at Attimetric Wind Speed Error: The error value is currently set for products over land at Cs_OFFL_SIR_IOP_2_20170317T004930_20170317T005816_B001         CS_OFFL_SIR_IOP_2_20170317T025226_20170317T025705_B001         CS_OFFL_SIR_IOP_2_20170317T031035_20170317T032701_B001   | e-determined baseline and also to check the<br>lecked for the default error value (32767).<br>a Level 2 products which are expected due<br>rom this test.<br>and sea ice, but this is to be expected.<br>rer land and sea ice, but this is to be expected.<br>Test Failed<br>Total Geocentric Ocean Tide (FES), N<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES)  | e to surface type. All common flags are summarised in the list below,<br>d.<br>Description<br>There is an error with the Total Geocentric Ocean Tide height (solution<br>FES) and the Non-equilibrium Long Period Ocean Tide height for one o<br>more records<br>There is an error with the Total Geocentric Ocean Tide height (solution<br>FES) for one or more records<br>There is an error with the Total Geocentric Ocean Tide height (solution<br>FES) for one or more records<br>There is an error with the Total Geocentric Ocean Tide height (solution<br>FES) for one or more records   |
| 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 provide the sequence of products is checked for missing Data Set Descriptors with respect to a provide of products with errors:         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for Sea State Bias Error: The error value is currently set for products over land a Attimetric Wind Speed Error: The error value is currently set for products over land a Attimetric Wind Speed Error: The error value is currently set for products over land a Attimetric Sea OFFL_SIR_IOP_2_20170317T025226_20170317T025816_B001         CS_OFFL_SIR_IOP_2_20170317T031035_20170317T032701_B001         CS_OFFL_SIR_IOP_2_20170317T034347_20170317T035730_B001  | e-determined baseline and also to check the<br>becked for the default error value (32767).<br><b>b Level 2 products which are expected dur</b><br><b>rom this test.</b><br>and sea ice, but this is to be expected.<br><b>rer land and sea ice, but this is to be expected</b><br><b>Test Failed</b><br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES)   | e to surface type. All common flags are summarised in the list below,         d.         on-<br>FES) and the Non-equilibrium Long Period Ocean Tide height (solution more records         There is an error with the Total Geocentric Ocean Tide height for one of more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         on-<br>FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height for one of more records         on-<br>FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution Period Decean Tide height (so |
| 5.3 L2 Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with respect to a pr         Wind Model File Usage: This file is currently not included in all L2 products.         Number of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are ch         Currently, there are two common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise fin         Sea State Bias Error: The error value is currently set for products over land a Altimetric Wind Speed Error: The error value is currently set for products over land a set of the followed by a followed Error.   | e-determined baseline and also to check the<br>necked for the default error value (32767).<br>a Level 2 products which are expected dur-<br>rom this test.<br>and sea ice, but this is to be expected.<br>rer land and sea ice, but this is to be expected.<br>rer land and sea ice, but this is to be expected.<br>Total Geocentric Ocean Tide (FES), N<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES), N<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), N<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), N | e to surface type. All common flags are summarised in the list below,         d.         d.         on       There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         There is an error with the Total Geocentric Ocean Tide height (solution FES) for one or more records         on       There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records         on       There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records         on       There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records   |

CS\_OFFL\_SIR\_IOP\_2\_\_20170317T043915\_20170317T044934\_B001

Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records

| CS_OFFL_SIR_IOP_220170317T052532_20170317T053517_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_220170317T062106_20170317T062212_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_220170317T073848_20170317T074842_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_220170317T105100_20170317T105134_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_220170317T110753_20170317T111039_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_220170317T124518_20170317T125243_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_220170317T133646_20170317T140700_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_220170317T140700_20170317T141107_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_220170317T141330_20170317T141439_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_220170317T155315_20170317T155946_B001 | Total Geocentric Ocean Tide (FES), Non-<br>Equilibrium Long Period Ocean Tide | more records  |
| CS_OFFL_SIR_IOP_220170317T160740_20170317T161013_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_220170317T173303_20170317T173910_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_0FFL_SIR_IOP_220170317T174444_20170317T174705_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_220170317T193135_20170317T194451_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_220170317T224352_20170317T231847_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 |

#### 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. 0

Number of products with errors:

#### 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. 34

#### Number of products with errors:

| Product   | Test Failed                | Description  |
|---|----------------------------|--|
| CS_OFFL_SIR_IOP_220170317T001447_20170317T001554_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T001600_20170317T002007_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T014956_20170317T015452_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T015459_20170317T015505_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T015513_20170317T015833_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T023831_20170317T024141_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033351_20170317T033357_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033357_20170317T033403_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033404_20170317T033409_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033410_20170317T033422_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033427_20170317T033559_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T051301_20170317T051308_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T051308_20170317T051319_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T051326_20170317T051335_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T051340_20170317T051442_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T064836_20170317T065218_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T065225_20170317T065233_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T065239_20170317T065535_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T082618_20170317T083131_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T083138_20170317T083505_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |

| CS_OFFL_SIR_IOP_220170317T100617_20170317T101205_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
|---|----------------------------|--|
| CS_OFFL_SIR_IOP_220170317T101216_20170317T101407_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T114546_20170317T115057_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T132737_20170317T132959_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T150711_20170317T150907_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T151050_20170317T151410_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T164538_20170317T164829_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T164840_20170317T165310_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220170317T182341_20170317T183213_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T191311_20170317T191408_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T200307_20170317T200434_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220170317T200553_20170317T201011_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T214505_20170317T215051_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_0FFL_SIR_IOP_220170317T232410_20170317T232921_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

Number of products with errors:

| Product   | Test Failed                      | Description  |
|---|----------------------------------|--|
| CS_OFFL_SIR_IOP_220170317T001600_20170317T002007_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T014956_20170317T015452_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220170317T015459_20170317T015505_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T015513_20170317T015833_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033357_20170317T033403_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033404_20170317T033409_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T033427_20170317T033559_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220170317T051301_20170317T051308_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T051340_20170317T051442_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T064836_20170317T065218_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T065239_20170317T065535_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T083138_20170317T083505_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T100617_20170317T101205_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T101216_20170317T101407_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T114546_20170317T115057_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T132737_20170317T132959_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T150711_20170317T150907_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T151050_20170317T151410_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T164538_20170317T164829_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T164840_20170317T165310_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T182341_20170317T183213_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T191311_20170317T191408_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T200307_20170317T200434_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T200553_20170317T201011_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_IOP_220170317T214505_20170317T215051_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_IOP_220170317T232410_20170317T232921_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. 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.

### 143

# 6. IOP QCC Report Analysis

The Quality Control for CryoSat (QCC) facility 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_IOP_1B                    | 261                | 261             | 261       | 0            | 0          |
| SIR_IOP_2                     | 260                | 260             | 260       | 0            | 0          |
| 6.1 QCC Errors                |                    |                 |           |              |            |
| Number of QCC reports with er | rrors: 0           |                 |           |              |            |
| 6.2 QCC Warnings              |                    |                 |           |              |            |
| Number of QCC reports with w  | arnings 0          |                 |           |              |            |
| 6.3 Missing QCC Repo          | orts               |                 |           |              |            |
| Number of products with missi | ing QCC reports: 0 |                 |           |              |            |