

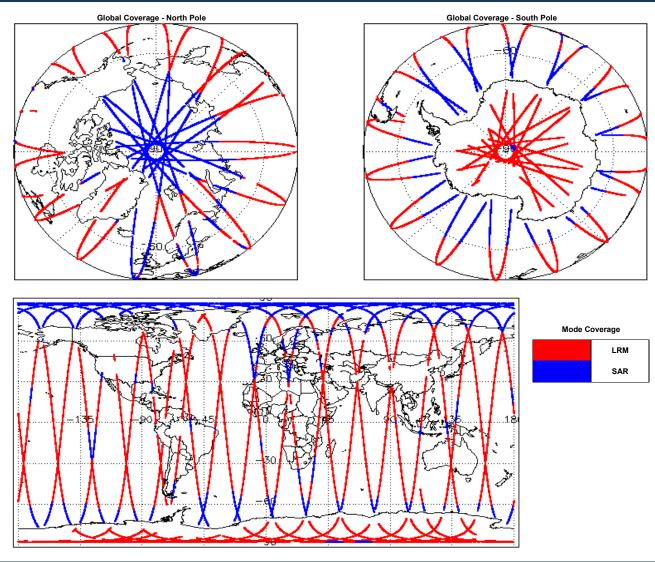
# IDEAS+ Daily Report for GOP data:

# <u>27/10/2016</u>

| Report Production Date: | 28-Nov-2016   | 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:              | Geophysical Ocean Products (GOP)<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 |

| 20 000 2010 |                 |
|-------------|-----------------|
| 27-Oct-2016 |                 |
| 28-Oct-2016 | Nothing planned |
|             |                 |





## 3. Instrument Configuration

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

### SIRAL instrument(s) in use:

SIRAL - A

# 4. GOP 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 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 Auxilary Data File Usage Check   |  |  |
|--|--|--|
| Each product is checked for missing Data Set Descriptors with respect to a pre-  | e-determined baseline and also to check the va   | idity 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 measurem   | ent record. The bit value of this flag indicates a   | ny problems when set.  |
| Number of products with errors: 0  | Ĵ  |  |
| 4.5 L1B Measurement Confidence Data Check  |  |  |
| CryoSat L1B data includes a measurement confidence flag (field 12) for each i  | measurement record. The bit value of this flag i   | ndicates 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 measureme   | ent record. The bit value of this flag indicates a   | ny problems when set.  |
| .oss of Echo Flag: This flag is currently set for products over land, but this is  | to be expected.  |  |
| lumber of products with errors: 17   |  |  |
| Product  | Test Failed  | Description  |
| S_OFFL_SIR_GOP_1B_20161026T235750_20161027T000936_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T001839_20161027T003151_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T013537_20161027T014402_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T030551_20161027T031058_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T043520_20161027T043545_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T044116_20161027T044405_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T075012_20161027T075854_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T080422_20161027T081205_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T112236_20161027T112920_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
| CS_OFFL_SIR_GOP_1B_20161027T115011_20161027T115151_B001  | Loss of Echo   | The tracking echo is missing for one or more records   |
| S_OFFL_SIR_GOP_1B_20161027T122603_20161027T123614_B001   | Loss of Echo   | The tracking echo is missing for one or more records   |
|  |  |  |
| 5. G   | OP Level 2 Data Quality Ch   | eck  |
| 5.1 L2 Product Format Check  |  |  |
|  | ensure it consists of both an XML header file (.h  | IDR) and a product file (.DBL).  |
|  | ensure it consists of both an XML header file (.)  | IDR) and a product file (.DBL).  |
| Number of products with errors:     0       5.2 L2 Product Header Analysis   |  |  |
| 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   |  |  |
| Jumber 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   |  |  |
| 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 Number of products with errors:         0   |  |  |
| 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 Number of products with errors:         0         5.3 L2 Auxiliary Data File Usage Check  | d SPH in order to identify any inconsistencies a   | nd/or errors raised by the ground-segment processing chain.  |
| Aumber 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 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 preserved on the server of a preserved on the server on the server of a preserved on the server of a preserved on the server on the served on the server on the server on the served | d SPH in order to identify any inconsistencies a   | nd/or errors raised by the ground-segment processing chain.  |
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| 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         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         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  | d SPH in order to identify any inconsistencies a<br>e-determined baseline and also to check the va   | nd/or errors raised by the ground-segment processing chain.  |
| Aumber 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 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 previous of products with errors:         0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are check  | d SPH in order to identify any inconsistencies a<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).   | nd/or errors raised by the ground-segment processing chain.<br>idity of Auxiliary Data Files is correct.   |
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| Iumber 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         Iumber 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         Vind Model File Usage: This file is currently not included in all L2 products.         Iumber of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections within the Geophysical Group are check         For all products, the auxiliary corrections wi   | d SPH in order to identify any inconsistencies a<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).<br>e Level 2 products which are expected due to<br>om this test.  | nd/or errors raised by the ground-segment processing chain.<br>idity of Auxiliary Data Files is correct.   |
| Iumber 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         Iumber 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-         Vind Model File Usage: This file is currently not included in all L2 products.         Iumber of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are che         Currently, there are two common auxiliary correction errors raised in the bollowed by a table highlighting any additional issues which may arise for a state Bias Error: The error value is currently set for products over land a state Bias Error: The error value is currently set for products over land a state Bias Error:   | d SPH in order to identify any inconsistencies an<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).<br>b Level 2 products which are expected due to<br>rom this test.<br>Ind sea ice, but this is to be expected.  | nd/or errors raised by the ground-segment processing chain.<br>idity of Auxiliary Data Files is correct.   |
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| Jumber of products with errors:       0         5.2 L2 Product Header Analysis         or all products, a series of pre-defined checks are performed on the MPH and tumber of products with errors:         0         5.3 L2 Auxiliary Data File Usage Check         cach product is checked for missing Data Set Descriptors with respect to a pre-<br>Vind Model File Usage: This file is currently not included in all L2 products.         lumber of products with errors:       0         5.4 L2 Auxiliary Correction Error Check         or all products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for the asset at the Bias Error: The error value is currently set for products over land a sufficience of products with errors:         16       16         renduct       16         re   | d SPH in order to identify any inconsistencies and<br>e-determined baseline and also to check the value<br>acked for the default error value (32767).<br>P Level 2 products which are expected due to<br>form this test.<br>Ind sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES), Non  | Ind/or errors raised by the ground-segment processing chain.   |
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| Jumber of products with errors:       0         5.2 L2 Product Header Analysis         or all products, a series of pre-defined checks are performed on the MPH and tumber of products with errors:         0         5.3 L2 Auxiliary Data File Usage Check         ach product is checked for missing Data Set Descriptors with respect to a product with errors:         0         5.4 L2 Auxiliary Correction Error Check         are of products, the auxiliary corrections within the Geophysical Group are checked by a table highlighting any additional issues which may arise for a set as table Bias Error: The error value is currently set for products over land a timetric Wind Speed Error: The error value is currently set for products over land a timetric Wind Speed Error: The error value is currently set for products over land a set of products with errors:         16       roduct         17       roduct         18       roduct         19       roduct         10       roducts over land a set of products over land a set of products over land a set of products with errors:         18       roduct         19       roduct         10       roduct         11       roduct         12       roducts, lang GOP 220161027T012032_20161027T01340_B001         13       rs_OFFL_SIR_GOP 220161027T012332_20161027T013037_B001   | d SPH in order to identify any inconsistencies at<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).<br>• Level 2 products which are expected due to<br>form this test.<br>Ind sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non  | Ididity of Auxiliary Data Files is correct.  |
| Aumber 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 tumber 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 prevent of products with errors:         0         5.4 L2 Auxiliary Correction Error Check         Corrently, there are two common auxiliary correction errors raised in the Geophysical Group are checked by a table highlighting any additional issues which may arise for Bea State Bias Error: The error value is currently set for products over land a future of products with errors:         16         Corrently, there are two common auxiliary correction errors raised in the Geophysical Group are checked by a table highlighting any additional issues which may arise for Bea State Bias Error: The error value is currently set for products over land a future of products with errors:         16         Product         CS_OFFL_SIR_GOP_2_20161027T011641_20161027T01340_B001         CS_OFFL_SIR_GOP_2_20161027T012332_20161027T013037_B001         CS_OFFL_SIR_GOP_2_20161027T012332_20161027T013037_B001         CS_OFFL_SIR_GOP_2_20161027T030413_20161027T030444_B001   | d SPH in order to identify any inconsistencies at<br>e-determined baseline and also to check the val<br>e-determined baseline and al | Idity of Auxiliary Data Files is correct.  |
| 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 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 prevent of products with errors:         0         5.4 L2 Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical Group are check         Corrently, there are two common auxiliary correction errors raised in the ollowed 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 Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error: The error value is currently set for products over land a Numetric Wind Speed Error Sea State Elias Error value is currently set for product   | d SPH in order to identify any inconsistencies at<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).<br>• Level 2 products which are expected due to<br>form this test.<br>Ind sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (GOT),<br>Total Geocentric Ocean Tide (GOT),<br>Total Geocentric Ocean Tide (GOT),<br>Total Geocentric Ocean Tide (GOT),<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide  | Ididity of Auxiliary Data Files is correct.  Ididity of Auxiliary Data Files is correct.  Description  There is an error with the Total Geocentric Ocean Tide height (solution 1) FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2) FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2) 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 2) FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2) 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 2) 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 for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocea      |
| Aumber 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 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 prevent of products with errors:         0         5.4 L2 Auxiliary Correction Error Check         Corrently, there are two common auxiliary correction errors raised in the Course 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 Currently of products with errors:         16         Product         2: OFFL_SIR_GOP_2_20161027T000941_20161027T001340_B001         2: S.OFFL_SIR_GOP_2_20161027T012332_20161027T013037_B001         2: S_OFFL_SIR_GOP_2_20161027T0130413_20161027T030444_B001         2: S_OFFL_SIR_GOP_2_20161027T0130413_20161027T0130444_B001  | d SPH in order to identify any inconsistencies at<br>e-determined baseline and also to check the va<br>ecked for the default error value (32767).<br>b Level 2 products which are expected due to<br>rom this test.<br>and sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>er land and sea ice, but this is to be expected.<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES)<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non<br>Equilibrium Long Period Ocean Tide<br>Total Geocentric Ocean Tide (FES), Non  | Ind/or errors raised by the ground-segment processing chain.  Idity of Auxiliary Data Files is correct.  Description  There is an error with the Total Geocentric Ocean Tide height (solution 1)  GOT and solution 2: 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 2) GOT and solution 2: 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 2) GOT and solution 2: 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 2) 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 2) 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 2) 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 for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide height for one or more records There is an error with the Total Geocentric Ocean Tide hei      |

| CS_OFFL_SIR_GOP_220161027T122603_20161027T123614_B001 |   | There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records   |
|---|---|---|
| CS_OFFL_SIR_GOP_220161027T180720_20161027T181112_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_GOP_220161027T193414_20161027T194333_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_GOP_220161027T194556_20161027T195321_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_GOP_220161027T195609_20161027T202025_B001 | Geoid Height  | There is an error with the Geoid height for one or more records   |
| CS_OFFL_SIR_GOP_220161027T211419_20161027T211506_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_GOP_220161027T230604_20161027T232250_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_GOP_220161027T233547_20161027T233820_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. 32

#### Number of products with errors:

| Product   | Test Failed                | Description  |
|---|----------------------------|--|
| CS_OFFL_SIR_GOP_220161027T003617_20161027T004440_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T021516_20161027T021715_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T021801_20161027T022259_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T035442_20161027T035518_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T035723_20161027T040323_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T053630_20161027T054153_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T071525_20161027T071633_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T071633_20161027T071639_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T071639_20161027T072046_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T085032_20161027T085531_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T085531_20161027T085537_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T085537_20161027T085544_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T085552_20161027T085909_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T093909_20161027T094221_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T103429_20161027T103436_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T103442_20161027T103448_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T103448_20161027T103500_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T103506_20161027T103637_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T121340_20161027T121347_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T121420_20161027T121522_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T134914_20161027T135256_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T135318_20161027T135617_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T152656_20161027T153210_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T153217_20161027T153544_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T170656_20161027T171244_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T171259_20161027T171446_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T184624_20161027T185136_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T202816_20161027T203038_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T220749_20161027T220946_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T221126_20161027T221449_B001 | Ice Range Averaging Status | The Ice Range Averaging Status Flag has been set for one or more records.    |

CS\_OFFL\_SIR\_GOP\_2\_\_20161027T234615\_20161027T234909\_B001 CS\_OFFL\_SIR\_GOP\_2\_\_20161027T234919\_20161027T235350\_B001 Ice Range Averaging Status Ice Range Averaging Status The Ice Range Averaging Status Flag has been set for one or more records 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.

I . . . . .

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. 27

Number of products with errors:

| Product  | Test Failed                      | Description  |
|--|----------------------------------|--|
| CS_OFFL_SIR_GOP_220161027T003617_20161027T004440_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T021516_20161027T021715_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T021801_20161027T022259_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T035442_20161027T035518_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_2_20161027T035723_20161027T040323_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T053630_20161027T054153_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T071639_20161027T072046_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T085032_20161027T085531_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T085537_20161027T085544_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T085552_20161027T085909_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T093909_20161027T094221_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T103429_20161027T103436_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_2_20161027T103442_20161027T103448_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T103448_20161027T103500_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T121420_20161027T121522_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T134914_20161027T135256_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T135318_20161027T135617_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T152656_20161027T153210_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T153217_20161027T153544_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T170656_20161027T171244_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T171259_20161027T171446_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T184624_20161027T185136_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_2_20161027T202816_20161027T203038_B001 | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T220749_20161027T220946_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T221126_20161027T221449_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more records.    |
| CS_OFFL_SIR_GOP_220161027T234615_20161027T234909_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>records. |
| CS_OFFL_SIR_GOP_220161027T234919_20161027T235350_B001  | Ice Backscatter Averaging Status | The Ice Backscatter Averaging Status Flag has been set for one or more<br>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.

148

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.

### Number of products with errors:

## 6. GOP 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               | No. Products | No. QCC Reports | No. Valid | No. Warnings | No. Errors |
|----------------------------|--------------|-----------------|-----------|--------------|------------|
| SIR_GOP_1B                 | 0            | 240             | 240       | 0            | 0          |
| SIR_GOP_2                  | 0            | 237             | 237       | 0            | 0          |
|                            |              |                 |           |              |            |
| 6.1 QCC Errors             |              |                 |           |              |            |
| umber of products with QCC | Cerrors:     | 0               |           |              |            |
|                            |              | •               |           |              |            |
|                            |              |                 |           |              |            |
| 6.2 QCC Warnings           |              |                 |           |              |            |

| 6.3 | Missing | QCC | Reports |
|-----|---------|-----|---------|
|-----|---------|-----|---------|

Number of products with missing QCC reports: 0