



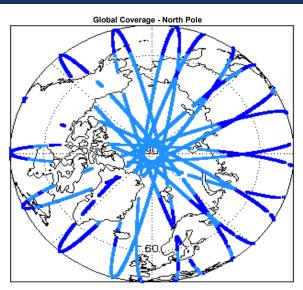
1. Overview

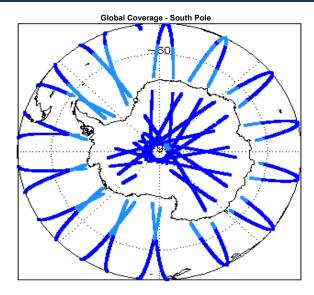
Report Production Date:	11-Jan-2016
Processor Used:	CryoSat Ocean Processor
Data Used:	Geophysical Ocean Products (GOP) L1B and L2 Science Data

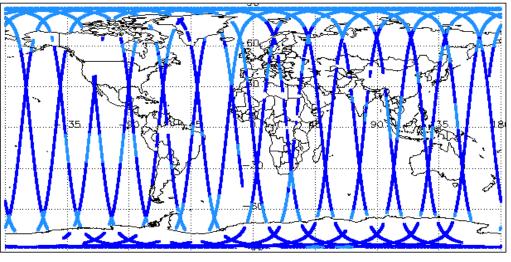
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement Confidence Data Check	See Section 4.5, 4.6, 5.5, 5.6, 5.7 and 5.8

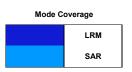
Mission / Instrument News		
08-Dec-2015	None	
09-Dec-2015	None	
10-Dec-2015	Nothing planned	

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. 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.

4.3 L1B Auxilary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors:

4.4 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:

4.5 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 12) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

 Product
 Test Failed
 Description

 CS_OFFL_SIR_GOP_1B_20151209T233106_20151209T233249_B001
 Power scaling error
 There is an error in the scaling of the L1B waveform for one or more records

4.6 L1B Waveform Group Data Check

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

Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.

18

Number of products with errors:

		L
Product	Test Failed	Description
CS_OFFL_SIR_GOP_1B_20151209T000820_20151209T002038_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T013048_20151209T013709_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T024233_20151209T025745_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T030929_20151209T031248_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T034306_20151209T034446_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T034551_20151209T034721_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T094958_20151209T102308_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T130829_20151209T132537_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T143039_20151209T143538_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T150446_20151209T151410_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T153435_20151209T153745_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T153805_20151209T153956_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T160849_20151209T161242_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T184419_20151209T184517_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T202107_20151209T202310_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T214909_20151209T215139_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T215139_20151209T215253_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151209T220043_20151209T220327_B001	Loss of Echo	The tracking echo is missing for one or more records

5. GOP Level 2 Data Quality Check

5.1 L2 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a 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:

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.

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.

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20151209T022024_20151209T022118_B001		There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records
CS_OFFL_SIR_GOP_2_20151209T031413_20151209T032216_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	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
CS_OFFL_SIR_GOP_2_20151209T034551_20151209T034721_B001	Fouilibrium Long Period Ocean Tide	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

Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Festing GoP 2 _ 20151209T056621_20151209T056729_B001 Total Geocentric Ocean Tide (FES), Non-Festing GoP 2 _ 20151209T096621_20151209T090610_B001 CS_OFFL_SIR_GOP 2 _ 20151209T090614_20151209T090610_B001 CS_OFFL_SIR_GOP 2 _ 20151209T090630_20151209T092932_B001 CS_OFFL_SIR_GOP 2 _ 20151209T092630_20151209T092932_B001 CS_OFFL_SIR_GOP 2 _ 20151209T092630_20151209T092932_B001 CS_OFFL_SIR_GOP 2 _ 20151209T130829_20151209T132537_B001 CS_OFFL_SIR_GOP 2 _ 20151209T134450_20151209T132537_B001 CS_OFFL_SIR_GOP 2 _ 20151209T134450_20151209T134613_B001 CS_OFFL_SIR_GOP 2 _ 20151209T134450_20151209T134613_B001 CS_OFFL_SIR_GOP 2 _ 20151209T144453_20151209T141630_B001 CS_OFFL_SIR_GOP 2 _ 20151209T144452_20151209T141630_B001 CS_OFFL_SIR_GOP 2 _ 20151209T144473_20151209T153046_B001 CS_OFFL_SIR_GOP 2 _ 20151209T150446_20151209T153956_B001 CS_OFFL_SIR_GOP 2 _ 20151209T15306_20151209T153956_B001 CS_OFFL_SIR_GOP 2 _ 20151209T160420_20151209T153956_B001 CS_OFFL_SIR_GOP 2 _ 20151209T170351_20151209T173456_B001 CS_OFFL_SIR_GOP 2	CS_OFFL_SIR_GOP_220151209T041342_20151209T042157_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	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
CS_OFFL_SIR_GOP_2_20151209T090414_20151209T0909010_B001 CS_OFFL_SIR_GOP_2_20151209T092630_20151209T092932_B001 CS_OFFL_SIR_GOP_2_20151209T092630_20151209T092932_B001 CS_OFFL_SIR_GOP_2_20151209T190829_20151209T092932_B001 CS_OFFL_SIR_GOP_2_20151209T190829_20151209T192537_B001 CS_OFFL_SIR_GOP_2_20151209T14450_20151209T134613_B001 CS_OFFL_SIR_GOP_2_20151209T14453_20151209T14613_B001 CS_OFFL_SIR_GOP_2_20151209T144453_20151209T14613_B001 CS_OFFL_SIR_GOP_2_20151209T144473_20151209T14613_B001 CS_OFFL_SIR_GOP_2_20151209T144723_20151209T1414030_B001 CS_OFFL_SIR_GOP_2_20151209T150446_20151209T15045_B001 CS_OFFL_SIR_GOP_2_20151209T150462_0151209T15045_B001 CS_OFFL_SIR_GOP_2_20151209T150462_0151209T15045_B001 CS_OFFL_SIR_GOP_2_20151209T16400_20151209T1546923_B001 CS_OFFL_SIR_GOP_2_20151209T16400_20151209T164203_B001 CS_OFFL_SIR_GOP_2_20151209T16400_20151209T164203_B001 CS_OFFL_SIR_GOP_2_20151209T16400_20151209T174056_B001 CS_OFFL_SIR_GOP_2_20151209T16400_20151209T174056_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T174056_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T174056_B001 CS_OFFL_SIR_GOP_2_20151209T171035_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T17035_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171035_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171035_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171035_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171035_20151209T	CS_OFFL_SIR_GOP_2_20151209T050807_20151209T052455_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20151209T092630_20151209T092932_B001 Geoid Height Total Geocentric Ocean Tide CS_OFFL_SIR_GOP_2_20151209T130829_20151209T132537_B001 CS_OFFL_SIR_GOP_2_20151209T134450_20151209T134613_B001 CS_OFFL_SIR_GOP_2_20151209T134450_20151209T134613_B001 CS_OFFL_SIR_GOP_2_20151209T14453_20151209T141630_B001 CS_OFFL_SIR_GOP_2_20151209T144723_20151209T15045_B001 CS_OFFL_SIR_GOP_2_20151209T15009T150046_20151209T150046_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T15009T15009T15009T60_B001 CS_OFFL_SIR_GOP_2_20151209T1600_20151209T16009T60_B001 CS_OFFL_SIR_GOP_2_20151209T17000_20151209T1600_B001 CS_OFFL_SIR_GOP_2_20151209T17000_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001 CS_OFFL_SIR_GOP_2_20151209T17000_B001	CS_OFFL_SIR_GOP_220151209T055621_20151209T055729_B001	Total Geocentric Ocean Tide (FES)	
Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide Total	CS_OFFL_SIR_GOP_2_20151209T090414_20151209T090610_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20151209T130829_20151209T134613_B001 CS_OFFL_SIR_GOP_2_20151209T14450_20151209T134613_B001 CS_OFFL_SIR_GOP_2_20151209T141453_20151209T141630_B001 CS_OFFL_SIR_GOP_2_20151209T141453_20151209T141630_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES) 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) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) 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 (FES), Non-Equilibrium Long Period Ocea	CS_OFFL_SIR_GOP_220151209T092630_20151209T092932_B001	Geoid Height	There is an error with the Geoid height for one or more records
CS_OFFL_SIR_GOP_2_20151209T14453_20151209T141630_B001 Total Geocentric Ocean Tide (FES), Non-grown or more records Total Geocentric Ocean Tide (FES) There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records Total Geocentric Ocean Tide (FES), Non-grown or more records Total Geoc	CS_OFFL_SIR_GOP_2_20151209T130829_20151209T132537_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20151209T144723_20151209T150245_B001 Total Geocentric Ocean Tide (FES) Total Geocentric Ocean Tide (FES) There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20151209T153805_20151209T153956_B001 CS_OFFL_SIR_GOP_2_20151209T153805_20151209T153956_B001 CS_OFFL_SIR_GOP_2_20151209T164200_20151209T164923_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T17026_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_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 (solution 2: 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 (solution 2: 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 (solution 2: 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 (solution 2: 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 (solution 2: 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 Oce	CS_OFFL_SIR_GOP_2_20151209T134450_20151209T134613_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
Total Geocentric Ocean Tide (FES) Total Geocentric Ocean Tide (FES) Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide ES_OFFL_SIR_GOP_2_20151209T153805_20151209T153956_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide ES_OFFL_SIR_GOP_2_20151209T164200_20151209T164923_B001 CS_OFFL_SIR_GOP_2_20151209T164200_20151209T164923_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 Total Geocentric Ocean Tide Total Geocentric Ocean	CS_OFFL_SIR_GOP_220151209T141453_20151209T141630_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20151209T150446_20151209T151410_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records 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 Total Geocentric Ocean Tide (FES), 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 (solution 2: 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 (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records Total Geocentric Ocean Tide (FES), 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 (solution 2: 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 (solution 2: 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 (solution 2: 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 (solution 2: 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 Lon	CS_OFFL_SIR_GOP_220151209T144723_20151209T150245_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20151209T153805_20151209T153956_B001 CS_OFFL_SIR_GOP_2_20151209T164200_20151209T164923_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T121545_20151209T1224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T233250_20151209T234236_B001 CS_OFFL_SIR_GOP_2_20151209T233250_20151209T234236_B001 CS_OFFL_SIR_GOP_2_20151209T233250_20151209T234236_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 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 (solution 2: 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 (solution 2: 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 (solution 2: 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 (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: F	CS_OFFL_SIR_GOP_2_20151209T150446_20151209T151410_B001	Total Geocentric Ocean Tide (FES), Non-	GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_2_20151209T16420_20151209T164923_B001 CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_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 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 (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 (solution 2: 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 (solution 2: 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 (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Peri	CS_OFFL_SIR_GOP_2_20151209T153805_20151209T153956_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001 Intal Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Pe	CS_OFFL_SIR_GOP_2_20151209T164200_20151209T164923_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 Total Geocentric Ocean Tide (FES), 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 (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non-Equilibrium Long P	CS_OFFL_SIR_GOP_2_20151209T170351_20151209T171026_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 CS_OFFL_SIR_GOP_2_20151209T221545_20151209T224906_B001 Iotal Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records Total Geocentric Ocean Tide (FES), Non-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 (FES).	CS_OFFL_SIR_GOP_2_20151209T171903_20151209T173456_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
	CS_OFFL_SIR_GOP_220151209T221545_20151209T224906_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
	CS_OFFL_SIR_GOP_220151209T233250_20151209T234226_B001	Total Geocentric Ocean Tide (FES)	

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:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20151209T233106_20151209T233249_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

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_GOP_220151209T012039_20151209T012607_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T012613_20151209T012619_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T012619_20151209T012626_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T012626_20151209T012900_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T020848_20151209T021025_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T021104_20151209T021303_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T030005_20151209T030503_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T030518_20151209T030524_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T030524_20151209T030535_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T030543_20151209T030704_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T043925_20151209T044416_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T044416_20151209T044422_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T044422_20151209T044434_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T044440_20151209T044449_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T044456_20151209T044605_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T062000_20151209T062331_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T062338_20151209T062348_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_220151209T062354_20151209T062721_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T075746_20151209T080245_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T080252_20151209T080620_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T093744_20151209T094316_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T111703_20151209T112212_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T125919_20151209T130116_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T143823_20151209T144026_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T144128_20151209T144528_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T153219_20151209T153321_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T161624_20151209T162430_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T175505_20151209T175711_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T175744_20151209T180313_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T193425_20151209T193528_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T193713_20151209T194159_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T194215_20151209T194312_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T211622_20151209T212153_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T225524_20151209T230038_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.

Number of products with errors:

28

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220151209T012039_20151209T012607_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T012619_20151209T012626_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T012626_20151209T012900_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T020848_20151209T021025_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T021104_20151209T021303_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T030518_20151209T030524_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T030543_20151209T030704_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T043925_20151209T044416_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T044416_20151209T044422_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T044422_20151209T044434_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T044456_20151209T044605_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T062000_20151209T062331_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T062354_20151209T062721_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T075746_20151209T080245_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T080252_20151209T080620_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T093744_20151209T094316_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T111703_20151209T112212_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T125919_20151209T130116_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T143823_20151209T144026_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T144128_20151209T144528_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T161624_20151209T162430_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T175505_20151209T175711_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T175744_20151209T180313_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T193425_20151209T193528_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151209T193713_20151209T194159_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151209T194215_20151209T194312_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_2_20151209T211622_20151209T212153_B001

Ice Backscatter Averaging Status

The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_2__20151209T225524_20151209T230038_B001

Ice Backscatter Averaging Status

The Ice Backscatter Averaging Status Flag has been set for one or more

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.

Number of products with errors:

152