

IDEAS+ Daily Report for GOP data:

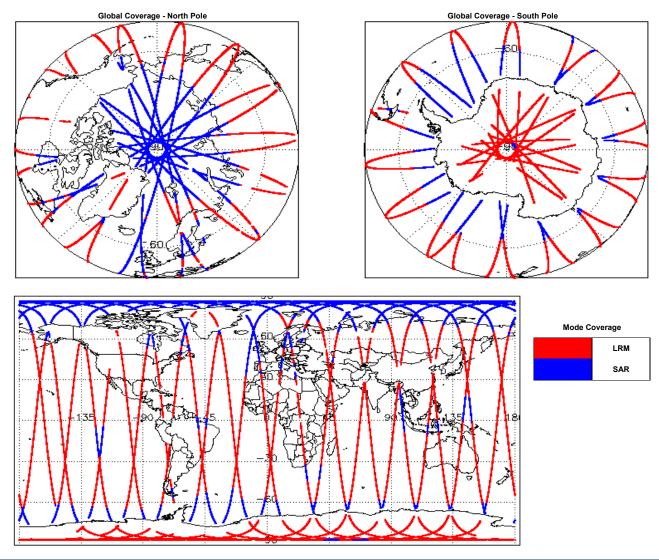
<u>25/06/2016</u>

Report Production Date:	28-Jul-2016	Check	Status
Report Froduction Date.		Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Used.		Product Software Check	Nominal
Data Used:	Geophysical Ocean Products (GOP) 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 4.5, 4.6, 5.5, 5.6, 5.7 and 5.8

1. Overview

Mission / Instrument News		
24-Jun-2016	SIRAL unavailability on 23-Jun-2016 from 22:14:16 to 24-Jun-2016 00:00:21 due to a planned orbit manoeuvre.	
25-Jun-2016	None	
26-Jun-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-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.

0

2

17

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_20160625T185818_20160625T190535_B001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_GOP_1B_20160625T221840_20160625T222217_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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_1B_20160625T000007_20160625T003503_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T031844_20160625T033534_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T045731_20160625T051241_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T051443_20160625T052406_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T053424_20160625T054109_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T054743_20160625T054857_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T060913_20160625T061621_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T062135_20160625T062406_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T102725_20160625T103242_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T120025_20160625T120130_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T134248_20160625T135016_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T135410_20160625T140152_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T145043_20160625T145418_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T165013_20160625T170344_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T172935_20160625T173959_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T181930_20160625T182412_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20160625T183043_20160625T183351_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: 0

5.2 L2 Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 0

5.3 L2 Auxiliary Data File Usage Check

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

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.

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

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220160625T004909_20160625T005159_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_220160625T005628_20160625T005920_B001		There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records
CS_OFFL_SIR_GOP_220160625T031844_20160625T033534_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_0010025103643_20100025103642 Total Geocentric Ocean Tide (FES) Net Equilation Long Period Ocean Tide Tada Geocentric Ocean Tide (FES) Net Tada Geocentric Ocean Tide (FES	CS_OFFL_SIR_GOP_220160625T034016_20160625T035443_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_2_2010023T051443_2010023T05440_2010023T05400_B001 Total Geocontric Ocean Tide (FES) Non- GOT and ended the Non-equilibrium Long Period Ocean Tide FES) for one or more records CS_OFFL_SIR_GOP_2_20100023T05444_20100023T054457_B001 Total Geocontric Ocean Tide (FES) There is an error with the Total Geocontric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide FES). CS_OFFL_SIR_GOP_2_20100023T054763_2016023T054057_B001 Total Geocontric Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide Height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide (FES). Non- FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FEE) and the Non-equilibrium Long Period Ocean	CS_OFFL_SIR_GOP_220160625T035443_20160625T035612_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20100025105442_0000257054857_8001 Total Geocentric Ocean Tide (FES), Nor- Equilationin Long Period Ocean Tide (FES), Nor- Cida Geocentric Ocean Tide (FES), Nor- Cid	CS_OFFL_SIR_GOP_220160625T051443_20160625T052406_B001	Total Geocentric Ocean Tide (FES), Non-	GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean
CS_OFFL_SIR_GOP_2_201606251054743_201606251064857_B001 Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide CS_OFFL_SIR_GOP_2_2016062510662_016062510662_B001 Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625106201_201606251070205_B001 Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_201606251071364_201606251072025_B001 Total Geocentric Ocean Tide (FES), Mon Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_201606251071364_201606251072025_B001 Total Geocentric Ocean Tide Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_201606251102034_201606251102035_B001 Total Geocentric Ocean Tide Equilibrium Long Period Ocean Tide Equilib	CS_OFFL_SIR_GOP_220160625T053424_20160625T054109_B001	Total Geocentric Ocean Tide (FES)	5 (
CS_OFFL_SIR_GOP_2_20160625T05052_20160625T051621_B001 Total Geoentric Ocean Tide (FES), More FES) and the Non-equilibrum Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625T06021_20160625T051621_B001 Total Geoentric Ocean Tide (FES), More FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide height (colution 2: FES) and the Non-equilibrum Long Period Ocean Tide h	CS_OFFL_SIR_GOP_220160625T054743_20160625T054857_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T06501_20160625T07004_B001 Total Geocentric Ocean Tide (FES), Non- GS_OFFL_SIR_GOP_2_20160625T071354_20160625T072025_B001 Total Geocentric Ocean Tide (FES), Non- Guillionum Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T072843_20160625T072843_20160625T072843_20160625T072843_20160625T102834_B001 Total Geocentric Ocean Tide (FES), Non- Guillionum Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T072843_20160625T072843_20160625T120834_B001 Total Geocentric Ocean Tide (FES), Non- Equillionum Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T120834_20160625T120834_B001 Total Geocentric Ocean Tide (FES), Non- Equillionum Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T160513_B001 Total Geocentric Ocean Tide (FES), Non- Equillionum Long Period Ocean Tide There is a neror with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equillibrum Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T160513_B001 Total Geocentric Ocean Tide (FES), Non- Equillibrum Long Period Oc	CS_OFFL_SIR_GOP_220160625T055052_20160625T060308_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T065201_20160625T070004_B001 Total Geocentric Ocean Tide CPES), Not- Feguilibrium Long Period Ocean Tide FeS), Not- Fes, Not-Fes, Not-Fes, Not-Fes, Not-Fes, Not-Fes, Not- Fes, Not-Fes, Not-	CS_OFFL_SIR_GOP_220160625T060913_20160625T061621_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T071354_20160625T072025_8001 India Geocentric Ocean Tide (FES), Non-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 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and 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 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equ	CS_OFFL_SIR_GOP_220160625T065201_20160625T070004_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T072843_20160625T080135_B001 Total Geocentric Ocean Tide (FES), Non- FES) and the Non-equilibrium Long Period Ocean Tide neight for one or more records CS_OFFL_SIR_GOP_2_20160625T120634_20160625T120928_B001 Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non-GOT and 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 L	CS_OFFL_SIR_GOP_220160625T071354_20160625T072025_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_201606251120634_201606251120928_B001 Total Geocentric Ocean Tide (GCT), Total Geocentric Ocean Tide (GCT), CS_OFFL_SIR_GOP_2_20160625T165013_20160625T165013_B001 Total Geocentric Ocean Tide (FES), Non-GQUI and solution 2: FES) and the 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 CS_OFFL_SIR_GOP_2_20160625T171229_20160625T171344_B001 Total Geocentric Ocean Tide (FES), Non-GQUI and the Non-equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height (solution 1: Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625T171229_20160625T1713959_B001 Total Geocentric Ocean Tide (FES), Non-GQUI and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non-GUI and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FES) for one or more records CS_OFFL_SIR_GOP_2_20160625T181407_20160625T184224_B001 Total	CS_OFFL_SIR_GOP_220160625T072843_20160625T080135_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T164759_20160625T165013_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20160625T171229_20160625T171936_B001 Total Geocentric Ocean Tide (FES), Non- GOT and 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 1: Total Geocentric Ocean Tide (FES), Non- GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: 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_20160625T172935_20160625T173959_B001 Total Geocentric Ocean Tide (FES), 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_20160625T181450_B001 Total Geocentric Ocean Tide (FES), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period 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_20160625T183514_20160625T184224_B001 Total Geocentric Ocean Tide (FES), Period Ocean Tide (GOT) 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 (solu	CS_OFFL_SIR_GOP_220160625T120634_20160625T120928_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20160625T165013_20160625T170344_B001 Total Geocentric Ocean Tide (FES), Non- Guilibrium Long Period Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (GOT) There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide (GOT) CS_OFFL_SIR_GOP_2_20160625T203829_B001 Total Geocentric Ocean Tide (GOT) There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non- fequilibrium Long Period Ocean Tide (FES), Non- fequilibrium Long Period Ocean Tide (GOT) CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (FES), No	CS_OFFL_SIR_GOP_220160625T164759_20160625T165013_B001	Total Geocentric Ocean Tide (FES), Non-	GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean
CS_OFFL_SIR_GOP_2_20160625T171229_20160625T171936_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625T172935_20160625T173959_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_20160625T181407_20160625T181450_B001 Total Geocentric Ocean Tide (FES), Total Geocentric Ocean Tide (FES), Son- Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records CS_OFFL_SIR_GOP_2_20160625T183514_20160625T184224_B001 Total Geocentric Ocean Tide (FES), 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 (GOT) for one or more records CS_OFFL_SIR_GOP_2_20160625T202929_20160625T203829_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean	CS_OFFL_SIR_GOP_220160625T165013_20160625T170344_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T172935_20160625T173959_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625T181407_20160625T181450_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_2_20160625T183514_20160625T184224_B001 Total Geocentric Ocean Tide (FES), 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 (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height (solution 1: GOT) for one or more records CS_OFFL_SIR_GOP_2_20160625T202929_20160625T203829_B001 Total Geocentric Ocean Tide (GOT) There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (FES), Non- 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	CS_OFFL_SIR_GOP_220160625T171229_20160625T171936_B001	Total Geocentric Ocean Tide (FES), Non-	GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean
CS_OFFL_SIR_GOP_2_20160625T181407_20160625T18450_B001 Total Geocentric Ocean Tide (FES), Non- FES) for one or more records CS_OFFL_SIR_GOP_2_20160625T183514_20160625T184224_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T202929_20160625T203829_B001 Total Geocentric Ocean Tide (GOT) CS_OFFL_SIR_GOP_2_20160625T202929_20160625T203829_B001 Total Geocentric Ocean Tide (GOT) CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T205918_20160625T203829_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T205918_20160625T000009_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T235918_20160626T000009_B001 Total Geocentric Ocean Tide (FES), Non- CS_OFFL_SIR_GOP_2_20160625T235918_20160626T000009_B001 Total Geocentric Ocean Tide (FES), Non-	CS_OFFL_SIR_GOP_220160625T172935_20160625T173959_B001	Total Geocentric Ocean Tide (FES), Non-	GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean
CS_OFFL_SIR_GOP_2_20160625T183514_20160625T184224_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20160625T202929_20160625T203829_B001 Total Geocentric Ocean Tide (GOT) There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_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 CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_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 CS_OFFL_SIR_GOP_2_20160625T235918_20160626T000009_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 CS_OFFL_SIR_GOP_2_20160625T235918_20160626T000009_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	CS_OFFL_SIR_GOP_220160625T181407_20160625T181450_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 Total Geocentric Ocean Tide (EG) in the formation of the f	CS_OFFL_SIR_GOP_220160625T183514_20160625T184224_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20160625T221707_20160625T221839_B001 CS_OFFL_SIR_GOP_2_20160625T235918_20160626T00009_B001 CS_OFFL_SIR_GOP_2_20160625T235918_20160626T00009_B001 Total Geocentric Ocean Tide (FES), Non- Fullibrium Long Period Ocean Tide height for one or Fullibrium Long Period Ocean Tide height (solution 2: Fullibrium Long Period Ocean Tide height for one or Fullibrium Long Period Ocean Tide height for one or	CS_OFFL_SIR_GOP_220160625T202929_20160625T203829_B001	Total Geocentric Ocean Tide (GOT)	
CS_OFFL_SIR_GOP_2_20160625T235918_20160626T000009_B001	CS_OFFL_SIR_GOP_220160625T221707_20160625T221839_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
	CS_OFFL_SIR_GOP_220160625T235918_20160626T000009_B001	Equilibrium Long Period Ocean Tide	FES) and the Non-equilibrium Long Period Ocean Tide height for one or

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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: 2

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20160625T185818_20160625T190535_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_220160625T221840_20160625T222217_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. 29

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220160625T012659_20160625T013208_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T030916_20160625T031112_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T044819_20160625T045022_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T045123_20160625T045524_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T054218_20160625T054318_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T062620_20160625T063426_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T080501_20160625T080707_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T080740_20160625T081309_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T094421_20160625T094524_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T094709_20160625T095157_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_220160625T095208_20160625T095309_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T112618_20160625T113148_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T130520_20160625T131034_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T144059_20160625T144520_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T144534_20160625T144538_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T144538_20160625T144933_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T152920_20160625T153208_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162419_20160625T162425_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162425_20160625T162431_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162431_20160625T162437_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162437_20160625T162634_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T175826_20160625T180329_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T180329_20160625T180336_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T180353_20160625T180508_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T193844_20160625T194246_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T194307_20160625T194514_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T211633_20160625T212159_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T212206_20160625T212531_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T225635_20160625T230438_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. 22

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220160625T012659_20160625T013208_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T030916_20160625T031112_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T044819_20160625T045022_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T045123_20160625T045524_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T062620_20160625T063426_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T080501_20160625T080707_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T080740_20160625T081309_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T094421_20160625T094524_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T094709_20160625T095157_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T095208_20160625T095309_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T130520_20160625T131034_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T144059_20160625T144520_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T144538_20160625T144933_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162431_20160625T162437_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T162437_20160625T162634_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T175826_20160625T180329_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T180353_20160625T180508_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T193844_20160625T194246_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T194307_20160625T194514_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T211633_20160625T212159_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T212206_20160625T212531_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220160625T225635_20160625T230438_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

5.8 L2 Ocean Retracking Quality Check

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

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