

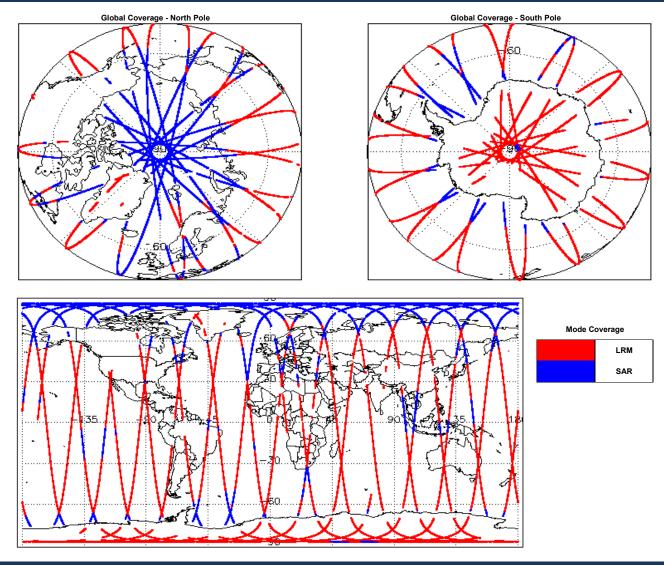
IDEAS+ Daily Report for GOP data:

<u>08/03/2017</u>

eport Production Date:	06-Apr-2017	Check	Status
eport Production Date.	00-Api-2017	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ocean Bracessor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Useu.	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Geophysical Ocean Products (GOP)	Product Format Check	Nominal
	L1B and L2 Science Data	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

08-Mar-2017	None
09-Mar-2017	Nothing planned

2.	Gl	obal	Cove	rage



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.

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_20170308T053537_20170308T054259_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 20170308T104930 20170308T105558 B001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more
	Devuer exeling error	records There is an error in the scaling of the L1B waveform for one or more
CS_OFFL_SIR_GOP_1B_20170308T171131_20170308T172248_B001	Power scaling error	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.

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Number of products with errors: 15

Product	Test Failed	Description
CS_OFFL_SIR_GOP_1B_20170308T003539_20170308T004429_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T020416_20170308T021209_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T035812_20170308T040949_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T041153_20170308T042741_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T051214_20170308T051317_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T051521_20170308T051639_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T102441_20170308T102648_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T103816_20170308T103952_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T143716_20170308T145451_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T160005_20170308T160442_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T163359_20170308T164321_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T170337_20170308T170814_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T201332_20170308T201433_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T201459_20170308T201956_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20170308T215038_20170308T215155_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: 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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220170308T001607_20170308T001852_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_220170308T015923_20170308T020003_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_220170308T021613_20170308T024827_B001	Geoid Height	There is an error with the Geoid height for one or more records

CS_OFFL_SIR_GOP_2_201703081103329_01703081103524_B001 Total Geocentric Ocean Tide (FES), Nor- Flex and rev with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (S_OFFL_SIR_GOP_2_201703081103329_01703081103524_B001 Total Geocentric Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FEQ) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FEQ) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FEQ) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FEQ) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_201703081120841_20170308112108_01 Total Geocentric Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FES), Nor- Flex an error with the Total Geocentric Ocean Tide height (solution 2 FES) and the Non-equilibum. Long Period Ocean Tide (FE	CS_OFFL_SIR_GOP_220170308T051521_20170308T051639_B001	Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	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
CS_OFFL_SIR_GOP_2_20170308T10329_20170308T103524_B001 Total Geocentric Ocean Tide (FES), Non FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T103816_20170308T103952_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T120841_20170308T121120_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T13403_20170308T135821_B001 Mean Sea Surface (1) There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T15403_20170308T154549_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T154032_20170308T154549_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T161632_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T161632_B001 Total Geocentric Ocean Tide (FES), Non There is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T16328_B001 Total Geocentric Ocean Tide (FES), Non There is an	CS_OFFL_SIR_GOP_220170308T054300_20170308T055115_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T103816_20170308T120841_20170308T12120_B001 Total Geocentric Ocean Tide (FES), Nor Equilibrium Long Period Ocean Tide Test is an error with the Total Geocentric Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T120841_20170308T12120_B001 Total Geocentric Ocean Tide (FES), Nor 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_20170308T120841_20170308T135621_B001 Mean Sea Surface (1) There is an error with the Total Geocentric Ocean Tide height (solution 1) for one or more records CS_OFFL_SIR_GOP_2_20170308T164403_20170308T164549_B001 Total Geocentric Ocean Tide (FES), Nor Equilibrium Long Period Ocean Tide (FES), Nor Equilibrium Long Period Ocean Tide (FES), Nor 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 fees) Nor more records CS_OFFL_SIR_GOP_2_20170308T170337_20170308T170345_B001 Total Geocentric Ocean Tide (FES)	CS_OFFL_SIR_GOP_220170308T103329_20170308T103524_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T120841_20170308T12120_0001 Indicide Geodentic Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T13403_20170308T15642_B001 Mean Sea Surface (1) 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: GE_0FFL_SIR_GOP_2_20170308T161622_20170308T16358_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T161632_20170308T164521_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T163359_20170308T164321_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 for one or more records CS_OFFL_SIR_GOP_2_20170308T170337_20170308T170814_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 Oce	CS_OFFL_SIR_GOP_220170308T103816_20170308T103952_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T154403_20170308T154549_B001 Total Geocentric Ocean Tide (FES), Nor- Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or nore records CS_OFFL_SIR_GOP_2_20170308T161622_20170308T163158_B001 Total Geocentric Ocean Tide (FES), Nor- Equilibrium Long Period Ocean Tide There is an error with the Total Geocentric Ocean Tide height for one or nore records CS_OFFL_SIR_GOP_2_20170308T163359_20170308T164321_B001 Total Geocentric Ocean Tide (FES), Nor- 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_20170308T170337_20170308T170814_B001 Total Geocentric Ocean Tide (FES), Nor- Equilibrium Long Period Ocean Tide (FES), Nor- Equilibrium Long Period Ocean Tide (FEG), Nor- Equilibrium Long Period Ocean Tide (FES), Nor- FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period	CS_OFFL_SIR_GOP_220170308T120841_20170308T121120_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
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CS_OFFL_SIR_GOP_2_20170308T161622_20170308T161622_20170308T1615358_B001 Ifeall Becoentric Ocean Tide (FES), Non- Feguilibrium Long Period Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide guilbrium Long Period Ocean Tide (FES), Non- Feguilbrium Long Period Ocean Tide (FES), Non- Feguilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilbrium Long Period Ocean Tide height (solution 1: Total Geocentric Ocean Tide (FES), Non- Feguilbrium Long Period Ocean Tide (FES), Non- Feguilbrium Lon	CS_OFFL_SIR_GOP_220170308T154403_20170308T154549_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T163359_20170308T164321_B001 Iotal Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height for one or more records CS_OFFL_SIR_GOP_2_20170308T170337_20170308T170814_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide height (solution 1: 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) for one or more records CS_OFFL_SIR_GOP_2_20170308T183258_20170308T183941_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_20170308T203214_20170308T20330_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_20170308T225234_20170308T225256_B001 Geoid Height Total Geocentric Ocean Tide (FES) <td>CS_OFFL_SIR_GOP_220170308T161622_20170308T163158_B001</td> <td></td> <td>FES) and the Non-equilibrium Long Period Ocean Tide height for one or</td>	CS_OFFL_SIR_GOP_220170308T161622_20170308T163158_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T170337_20170308T170814_B001 Total Geocentric Ocean Tide (FLS), Non- Equilibrium Long Period Ocean Tide (CFLS), Non- Total Geocentric Ocean Tide (CFLS), Non- Equilibrium Long Period Ocean Tide (CFLS), Non- Total Geocentric Ocean Tide (CFLS), Non- Equilibrium Long Period Ocean Tide (CFLS), Non- Total Geocentric Ocean Tide (CFLS), Non- Equilibrium Long Period Ocean Tide (CFLS), Non- Total Geocentric 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 CS_OFFL_SIR_GOP_2_20170308T201459_20170308T201956_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_20170308T203214_20170308T20330_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_20170308T225234_20170308T232402_B001 Total Geocentric Ocean Tide (FES), Non- 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 CS_OFFL_SIR_GOP_2_20170308T232240_20170308T232402_B001 Tota	CS_OFFL_SIR_GOP_220170308T163359_20170308T164321_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T170933_20170308T171130_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide CS_OFFL_SIR_GOP_2_20170308T172828_20170308T172828_20170308T173636_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_20170308T172828_20170308T173636_B001 Total Geocentric 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 CS_OFFL_SIR_GOP_2_20170308T201459_20170308T201956_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_20170308T203214_20170308T204330_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_20170308T225234_20170308T225236_B001 Geoid Height Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non-FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non-FES) and the Non-equilibrium Long Period Ocean Tide (FES), Non-FES) and the Non-equilibrium Long Perio	CS_OFFL_SIR_GOP_220170308T170337_20170308T170814_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T172828_20170308T173636_B001Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean TideFES) and the Non-equilibrium Long Period Ocean Tide height for one or more recordsCS_OFFL_SIR_GOP_2_20170308T183258_20170308T183941_B001Total Geocentric Ocean Tide (FES)There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more recordsCS_OFFL_SIR_GOP_2_20170308T201459_20170308T201956_B001Total Geocentric Ocean Tide (FES)There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more recordsCS_OFFL_SIR_GOP_2_20170308T203214_20170308T203214_20170308T204330_B001Total Geocentric Ocean Tide (FES)There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more recordsCS_OFFL_SIR_GOP_2_20170308T225234_20170308T2252365_B001Geoid HeightThere is an error with the Geoid height for one or more recordsCS_OFFL_SIR_GOP_2_20170308T232240_20170308T232402_B001Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean TideThere is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean TideCS_OFFL_SIR_GOP_2_20170308T232240_20170308T232402_B001Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean TideThere is an error with the Total Geocentric Ocean Tide height for one or more recordsCS_OFFL_SIR_GOP_2_20170308T232532_20170308T232837_B001Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean TideThere is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide FES) and the Non-equilibrium Long Period Ocean Tide FES) and	CS_OFFL_SIR_GOP_220170308T170933_20170308T171130_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_20170308T201459_20170308T201956_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_20170308T203214_20170308T203214_20170308T204330_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_20170308T203214_20170308T205254_20170308T20556_B001 Total Geocentric Ocean Tide (FES) There is an error with the Geoid height for one or more records CS_OFFL_SIR_GOP_2_20170308T225234_20170308T225236_B001 Geoid Height There is an error with the Geoid height for one or more records CS_OFFL_SIR_GOP_2_20170308T232240_20170308T232402_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_20170308T232532_20170308T232837_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	CS_OFFL_SIR_GOP_220170308T172828_20170308T173636_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
CS_OFFL_SIR_GOP_2_20170308T203214_20170308T20330_B001 Total Geocentric Ocean Tide (FES) FES) for one or more records CS_OFFL_SIR_GOP_2_20170308T203214_20170308T203214_20170308T225856_B001 Geoid Height There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records CS_OFFL_SIR_GOP_2_20170308T225234_20170308T225234_20170308T225856_B001 Geoid Height There is an error with the Geoid height for one or more records CS_OFFL_SIR_GOP_2_20170308T232240_20170308T2322402_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_20170308T232532_20170308T232837_B001 Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	CS_OFFL_SIR_GOP_220170308T183258_20170308T183941_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20170308T225234_20170308T225856_B001 Total Geocentric Ocean Tide (FES) FES) for one or more records CS_OFFL_SIR_GOP_2_20170308T225234_20170308T225856_B001 Geoid Height There is an error with the Geoid height for one or more records CS_OFFL_SIR_GOP_2_20170308T225234_20170308T2252856_B001 Geoid Height 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 Per	CS_OFFL_SIR_GOP_220170308T201459_20170308T201956_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20170308T232240_20170308T2322402_B001 Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide FES) and the Non-equilibrium Long Period Ocean Tide height (solution 2: Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide (FES), Non- Feguilibrium Long Period Ocean Tide (FES), Non-	CS_OFFL_SIR_GOP_220170308T203214_20170308T204330_B001	Total Geocentric Ocean Tide (FES)	
CS_OFFL_SIR_GOP_2_20170308T232240_20170308T2322402_B001 CS_OFFL_SIR_GOP_2_20170308T232532_20170308T2322837_B001 CS_OFFL_SIR_GOP_2_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232532_20170308T232837_B001 CS_OFFL_SIR_GOP_3_20170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T232837_B001 CS_OFFL_SIR_GOP_3_200170308T2320000 CS_OFFL_SIR_GOP_3_200000 CS	CS_OFFL_SIR_GOP_220170308T225234_20170308T225856_B001	Geoid Height	There is an error with the Geoid height for one or more records
CS_OFFL_SIR_GOP_2_20170308T232532_20170308T232837_B001	CS_OFFL_SIR_GOP_220170308T232240_20170308T232402_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or
	CS_OFFL_SIR_GOP_220170308T232532_20170308T232837_B001		FES) and the Non-equilibrium Long Period Ocean Tide height for one or

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: 3

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20170308T053537_20170308T054259_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_2_20170308T104930_20170308T105558_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_GOP_2_20170308T171131_20170308T172248_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_220170308T011457_20170308T011625_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T011633_20170308T012041_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T024957_20170308T025524_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T025524_20170308T025530_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T025530_20170308T025536_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T025537_20170308T025543_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T025543_20170308T025813_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T033811_20170308T033916_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T034032_20170308T034218_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T042924_20170308T043420_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T043421_20170308T043428_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T043435_20170308T043441_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_2_20170308T043500_20170308T043620_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T061334_20170308T061339_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T061413_20170308T061523_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T074915_20170308T075248_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T075256_20170308T075304_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T075311_20170308T075637_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T092705_20170308T093202_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T093209_20170308T093537_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T110703_20170308T111233_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T124621_20170308T125129_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T142839_20170308T143033_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T152421_20170308T152436_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T160739_20170308T160943_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T161042_20170308T161445_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T170135_20170308T170231_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T174539_20170308T175347_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T192423_20170308T192628_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T192702_20170308T193226_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T201332_20170308T201433_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T210344_20170308T210443_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T210631_20170308T211231_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T224540_20170308T225107_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. 28

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220170308T011457_20170308T011625_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T011633_20170308T012041_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T024957_20170308T025524_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T025524_20170308T025530_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T025537_20170308T025543_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T025543_20170308T025813_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T033811_20170308T033916_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T034032_20170308T034218_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T043435_20170308T043441_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T043500_20170308T043620_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T061334_20170308T061339_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T061413_20170308T061523_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T074915_20170308T075248_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T075256_20170308T075304_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T075311_20170308T075637_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T092705_20170308T093202_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T093209_20170308T093537_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20170308T110703_20170308T111233_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T124621_20170308T125129_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T142839_20170308T143033_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T160739_20170308T160943_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_220170308T161042_20170308T161445_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T174539_20170308T175347_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T192423_20170308T192628_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T192702_20170308T193226_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T201332_20170308T201433_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T210344_20170308T210443_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220170308T210631_20170308T211231_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.

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	275	275	275	0	0
SIR_GOP_2	270	270	270	0	0
6.1 QCC Errors					
Number of products with QCC errors: 0					
6.2 QCC Warnings					
Number of QCC reports with w	arnings 0				
6.3 Missing QCC Repo	orts				
Number of products with missi	ng QCC reports: 0				