



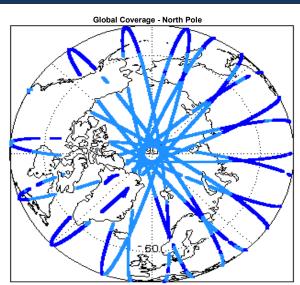
## 1. Overview

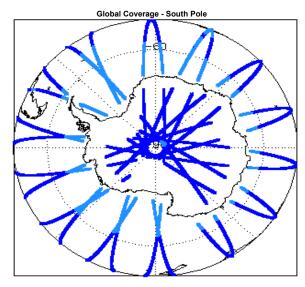
Report Production Date:	15-Jan-2016	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Geophysical Ocean Products (GOP)	

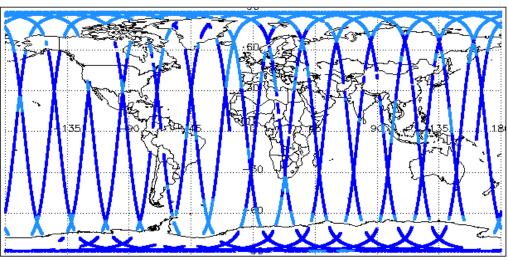
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement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

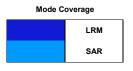
Mission / Instrument News		
18-Dec-2015	None	
19-Dec-2015	None	
20-Dec-2015	Nothing planned	

# 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:

0

#### 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:

14

Product	Test Failed	Description
CS_OFFL_SIR_GOP_1B_20151219T030107_20151219T030139_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T033405_20151219T033531_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T034053_20151219T034749_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T065610_20151219T070454_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T085220_20151219T085406_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T101118_20151219T102218_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T102323_20151219T102332_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T110012_20151219T110347_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T143513_20151219T145031_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T151438_20151219T151904_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T154624_20151219T160037_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T200854_20151219T201059_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T201229_20151219T202039_B001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_GOP_1B_20151219T205710_20151219T210051_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_20151219T003509_20151219T010635_B001		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_20151219T012503_20151219T013729_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_20151219T030710_20151219T031332_B001	Fauilibrium 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_20151219T031916_20151219T033047_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_20151219T054444_20151219T060400_B001		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_20151219T071722_20151219T074253_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_20151219T102830_20151219T103012_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_20151219T111632_20151219T114950_B001	Geoid Height	There is an error with the Geoid height for one or more records
CS_OFFL_SIR_GOP_2_20151219T125615_20151219T131148_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_220151219T131809_20151219T132640_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_220151219T140422_20151219T141904_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_220151219T145231_20151219T150151_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_20151219T151237_20151219T151410_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_20151219T163721_20151219T163754_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_220151219T165113_20151219T165817_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_20151219T214149_20151219T214221_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_20151219T214409_20151219T214627_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

## 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:

0

## 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.

 $\textbf{Ice Range Averaging Status Flag:} \ \textbf{This flag is currently set for products over land, but this is to be expected.}$ 32

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_220151219T002051_20151219T002127_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T010832_20151219T011355_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T011355_20151219T011401_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T011401_20151219T011408_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T011408_20151219T011414_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T011414_20151219T011631_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T015954_20151219T020044_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T024758_20151219T025253_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T025259_20151219T025306_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T025312_20151219T025324_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T042731_20151219T043222_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T043244_20151219T043400_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T060733_20151219T061121_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T061142_20151219T061508_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T074543_20151219T075034_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T075040_20151219T075410_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T092538_20151219T093103_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T110502_20151219T111001_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T120603_20151219T121442_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T124713_20151219T124906_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T134109_20151219T134359_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T142607_20151219T142817_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T142904_20151219T143320_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T152009_20151219T152049_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T160359_20151219T161221_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151219T174257_20151219T174456_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_GOP_2_20151219T174543_20151219T175042_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T192223_20151219T192300_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T192504_20151219T193104_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T210412_20151219T210935_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_220151219T224306_20151219T224415_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_GOP_2_20151219T224420_20151219T224828_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:

25

CS_OFFL_SIR_GOP_2_20151219T011428_20151219T011414_B001  Lob Backscatter Averaging Status  Lob Backscatter Av	Product	Test Failed	Description
Les Backscatter Averaging Status  CS_OFFL_SIR_GOP_2_20151219701414_20151219701432_B001  CS_OFFL_SIR_GOP_2_201512197025312_20151219704322_B001  CS_OFFL_SIR_GOP_2_201512197042731_20151219704322_B001  CS_OFFL_SIR_GOP_2_201512197042731_20151219704322_B001  CS_OFFL_SIR_GOP_2_201512197042731_20151219704300_B001  CS_OFFL_SIR_GOP_2_201512197067332_2015219704300_B001  CS_OFFL_SIR_GOP_2_201512197067332_20152197061122_B001  CS_OFFL_SIR_GOP_2_201512197061142_20151219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219706108_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219707504_B001  CS_OFFL_SIR_GOP_2_201512197060733_2015219707504_B001  CS_OFFL_SIR_GOP_2_2015121971062538_201512197063103_B001  CS_OFFL_SIR_GOP_2_2015121971062538_201512197063103_B001  CS_OFFL_SIR_GOP_2_2015121971062538_201512197063103_B001  CS_OFFL_SIR_GOP_2_2015121971060303_20151219711442_B001  CS_OFFL_SIR_GOP_2_201512197124713_2015121971442_B001  CS_OFFL_SIR_GOP_2_201512197124713_2015121971442_B001  CS_OFFL_SIR_GOP_2_20151219714730_01512197142817_B001  CS_OFFL_SIR_GOP_2_2015121971472003_2015121971442_B001  CS_OFFL_SIR_GOP_2_2015121971472003_201512197142817_B001  CS_OFFL_SIR_GOP_2_2015121971472000_201512197142817_B001  CS_OFFL_SIR_GOP_2_2015121971472003_201512197142810_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_201512197147450_20151219714428_B001  CS_OFFL_SIR_GOP_2_2015121971442904_20151219714428_B001  CS_OFFL_SIR_GOP_2_2015121971442904_2015121971442800  CS_OFFL_SIR_GOP_2_201512197144500_2015121971442800  CS_OFFL_SIR_GOP_2_201512197144500_2	CS_OFFL_SIR_GOP_220151219T002051_20151219T002127_B001	Ice Backscatter Averaging Status	
toe Backscatter Averaging Status The loe Backsca	CS_OFFL_SIR_GOP_220151219T011408_20151219T011414_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T04231_20151219T043222_B001  CS_OFFL_SIR_GOP_2_20151219T04324_20151219T043022_B001  CS_OFFL_SIR_GOP_2_20151219T04324_20151219T04300_B001  CS_OFFL_SIR_GOP_2_20151219T060733_20151219T061121_B001  CS_OFFL_SIR_GOP_2_20151219T074543_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T074543_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T075034_B001  CS_OFFL_SIR_GOP_2_20151219T10502_20151219T11001B001  CS_OFFL_SIR_GOP_2_20151219T10502_20151219T11001B001  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1244906_B001  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T124906_B001  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T124906_B001  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T124906_B001  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T1407503_20151219T1442801  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T143302_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T16021_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T16021_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T16021_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T1705004_B001  CS_OFFL_SIR_GOP_2_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14075009_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14075004_B001  CS_OFFL_SIR_GOP_2_20151219T14070040_20151219T14070005  CS_OFFL_SIR_GOP_2_20151219T1070005  CS_OFFL_SIR_GOP_2_20151219T1	CS_OFFL_SIR_GOP_220151219T011414_20151219T011631_B001	Ice Backscatter Averaging Status	
codes.  CS_OFFL_SIR_GOP_2_20151219T043244_20151219T043400_B001  CS_OFFL_SIR_GOP_2_20151219T06132_B001  CS_OFFL_SIR_GOP_2_20151219T06132_20151219T061508_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T07504_20151219T07504_B001  CS_OFFL_SIR_GOP_2_20151219T0505_20151219T11001_B001  CS_OFFL_SIR_GOP_2_20151219T10502_20151219T11001_B001  CS_OFFL_SIR_GOP_2_20151219T10502_20151219T112400_B001  CS_OFFL_SIR_GOP_2_20151219T10502_20151219T12400_B001  CS_OFFL_SIR_GOP_2_20151219T14000_20151219T142800_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T142810_B001  CS_OFFL_SIR_GOP_2_20151219T14200_20151219T14200_B001  CS_OFFL_SIR_GOP_2_20151219T14250_20151219T16204_B001  CS_OFFL_SIR_GOP_2_20151219T14250_20151219T16204_B001  CS_OFFL_SIR_GOP_2_20151219T14250_20151219T16204_B001  CS_OFFL_SIR_GOP_2_20151219T14250_20151219T17405_B001  CS_OFFL_SIR_GOP_2_20151219T174454_20151219T17404_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T17404_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T174250_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T174250_20151219T19300_B001  CS_OFFL_SIR_GOP_2_20151219T1744543_	CS_OFFL_SIR_GOP_220151219T025312_20151219T025324_B001	Ice Backscatter Averaging Status	
concept single of the process of the	CS_OFFL_SIR_GOP_220151219T042731_20151219T043222_B001	Ice Backscatter Averaging Status	
cs_OFFL_SIR_GOP_2_20151219106073_201512191061142_potinity_process  cs_OFFL_SIR_GOP_2_201512191060142_201512191076504_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191076540_201512191076504_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191076540_201512191076540_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_2015121910502_201512191083103_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_20151219110502_20151219110101_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191110502_20151219111001_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_2015121911120603_20151219111442_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114713_20151219111442_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114713_2015121911142906_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114200_201512191134359_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114200_201512191142806_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114200_20151219114200_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114200_20151219114200_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191114200_20151219114200_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191160359_20151219114300_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191160359_201512191161221_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191160359_201512191161221_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191174543_201512191174456_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191174543_201512191174548_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191174543_20151219119300_B001  cs_Backscatter Averaging Status  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191174543_20151219119300_B001  cs_Backscatter Averaging Status  cs_DFFL_SIR_GOP_2_201512191192004_20151219119000_B001  cs_Backscatter Averaging Status	CS_OFFL_SIR_GOP_220151219T043244_20151219T043400_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T075040_20151219T075041_B001	CS_OFFL_SIR_GOP_220151219T060733_20151219T061121_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T075040_20151219T093103_B001  Ice Backscatter Averaging Status  Ice Backscatter Av	CS_OFFL_SIR_GOP_220151219T061142_20151219T061508_B001	Ice Backscatter Averaging Status	
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CS_OFFL_SIR_GOP_2_20151219T120603_20151219T121442_B001  Ice Backscatter Averaging Status  Ice Backscatter Av	CS_OFFL_SIR_GOP_2_20151219T092538_20151219T093103_B001	Ice Backscatter Averaging Status	
records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_GOP_2_20151219T142607_20151219T142817_B001  Ice Backscatter Averaging Status  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  The loe Backscatter Averaging Status Flag has been set for one or more records.  Th	CS_OFFL_SIR_GOP_2_20151219T110502_20151219T111001_B001	Ice Backscatter Averaging Status	
Ice Backscatter Averaging Status  CS_OFFL_SIR_GOP_2_20151219T134109_20151219T134359_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Avera	CS_OFFL_SIR_GOP_220151219T120603_20151219T121442_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T142607_20151219T142817_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Avera	CS_OFFL_SIR_GOP_220151219T124713_20151219T124906_B001	Ice Backscatter Averaging Status	
Ice Backscatter Averaging Status  CS_OFFL_SIR_GOP_2_20151219T142904_20151219T143320_B001  Ice Backscatter Averaging Status  Ice Backscatter Av	CS_OFFL_SIR_GOP_220151219T134109_20151219T134359_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T152009_20151219T152049_B001  Ice Backscatter Averaging Status  records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_GOP_2_20151219T174257_20151219T174456_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Fla	CS_OFFL_SIR_GOP_220151219T142607_20151219T142817_B001	Ice Backscatter Averaging Status	
Ice Backscatter Averaging Status  CS_OFFL_SIR_GOP_2_20151219T160359_20151219T161221_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T175042_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_GOP_220151219T142904_20151219T143320_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T174257_20151219T174456_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T175042_B001  CS_OFFL_SIR_GOP_2_20151219T174543_20151219T175042_B001  CS_OFFL_SIR_GOP_2_20151219T192223_20151219T192300_B001  CS_OFFL_SIR_GOP_2_20151219T192223_20151219T192300_B001  CS_OFFL_SIR_GOP_2_20151219T192203_20151219T192300_B001  CS_OFFL_SIR_GOP_2_20151219T192504_20151219T193104_B001  CS_OFFL_SIR_GOP_2_20151219T192504_20151219T193104_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T193104_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T20935_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T20935_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T210935_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T210935_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T210935_B001  CS_OFFL_SIR_GOP_2_20151219T20412_20151219T20935_B001  CS_OFFL_SIR_GOP_2_20151219T2	CS_OFFL_SIR_GOP_220151219T152009_20151219T152049_B001	Ice Backscatter Averaging Status	
Ice Backscatter Averaging Status  CS_OFFL_SIR_GOP_2_20151219T174243_20151219T175042_B001  Ice Backscatter Averaging Status	CS_OFFL_SIR_GOP_220151219T160359_20151219T161221_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T174543_20151219T175042_B001  Ice Backscatter Averaging Status  records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_GOP_2_20151219T192504_20151219T193104_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_GOP_220151219T174257_20151219T174456_B001	Ice Backscatter Averaging Status	
records.  CS_OFFL_SIR_GOP_2_20151219T19223_20151219T192300_B001  Ice Backscatter Averaging Status  records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_GOP_2_20151219T210412_20151219T210935_B001  Ice Backscatter Averaging Status  Ice Backscatter Averaging Status  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.  The lee Backscatter Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_GOP_220151219T174543_20151219T175042_B001	Ice Backscatter Averaging Status	
CS_OFFL_SIR_GOP_2_20151219T192904_20151219T193104_B001  Ice Backscatter Averaging Status  records.  The lice Backscatter Averaging Status Flag has been set for one or more records.  The lice Backscatter Averaging Status Flag has been set for one or more records.  The lice Backscatter Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_GOP_220151219T192223_20151219T192300_B001	Ice Backscatter Averaging Status	
Ice Backscatter Averaging Status records.  The Ice Backscatter Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_GOP_220151219T192504_20151219T193104_B001	Ice Backscatter Averaging Status	
US OFFI SIR GOP 2 201512191224420 201512191224828 BUUT - IICE BACKSCATTET AVERAGING STATUS	CS_OFFL_SIR_GOP_220151219T210412_20151219T210935_B001	Ice Backscatter Averaging Status	
i cocido.	CS_OFFL_SIR_GOP_220151219T224420_20151219T224828_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

## 5.8 L2 Ocean Retracking Quality Check

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

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

Number of products with errors:

150