

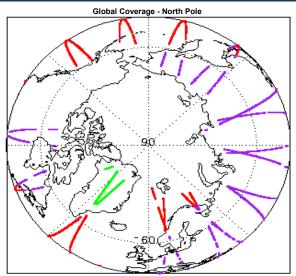
# 1. Overview

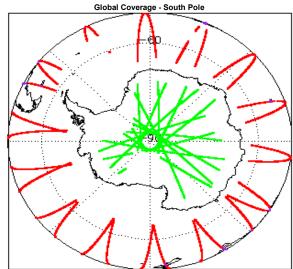
Report Production Date:	30-Jan-2020	
Processor Used:	CryoSat Ice Processor	
Data Used:	L1 and L2 Fast Delivery Marine (FDM)  Mode and L0 Data	

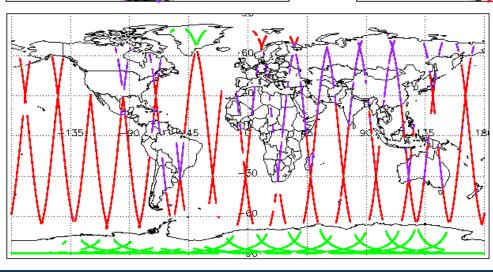
Check	Ctatus
Cneck	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2, 5.2 and 6.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 6.4
Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8

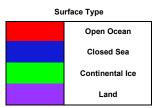
Mission / Instrument News		
28-Jan-2020	None	
29-Jan-2020	None	
30-Jan-2020	Nothing planned	

# 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
Star Tracker(s) in use:	Star Tracker 1

# 4. Level 0 Data Quality Check

## 4.1 L0 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 binary product file (.DBL).

#### 4.2 L0 Product Header Analysis

For all products, a series of pre-defined checks are carried out on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the processing chain.

Number of products with errors:

4

Product	Test Failed
CS_OPER_SIR1SIN_020200129T151817_20200129T151904_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0_20200129T070425_20200129T070737_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200129T102315_20200129T102853_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200129T193302_20200129T193619_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.

### 5. Level 1B FDM Data Quality Check

#### 5.1 L1B FDM 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 binary product file (.DBL).

Number of products with errors:

#### 5.2 L1B FDM Product Header Analysis

For all products, a series of pre-defined checks are carried out 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:

6

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200129T224120_20200129T224322_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T224010_20200129T224120_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T173759_20200129T173804_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T173645_20200129T173759_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T160106_20200129T160216_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T155421_20200129T160106_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).

#### 5.3 L1B FDM Star Tracker Usage Check

Each product is checked in order to ensure a valid star tracker file has been used in processing.

Number of products with errors:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200129T155421_20200129T160106_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200129T173645_20200129T173759_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200129T224010_20200129T224120_C001	No Star Tracker file used in the processing of this product

#### 5.4 L1B FDM Calibration Usage Check

Each product is checked in order to ensure the necessary calibration files have been used in processing.

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#### 5.5 L1B FDM 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:

#### 5.6 L1B FDM Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag (field 54) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

### 5.7 L1B FDM Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 18) 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_FDM_1B_20200129T113744_20200129T115228_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_FDM_1B_20200129T122549_20200129T123510_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_FDM_1B_20200129T155421_20200129T160106_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200129T173645_20200129T173759_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200129T224010_20200129T224120_C001	Attitude correction missing	The attitude has not been corrected

#### 6. Level 2 FDM Data Quality Check

#### 6.1 L2 FDM 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 binary product file (.DBL).

#### 6.2 L2 FDM Product Header Analysis

For all products, a series of pre-defined checks are carried out 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:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200129T224120_20200129T224322_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T224010_20200129T224120_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T173759_20200129T173804_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T173645_20200129T173759_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T160106_20200129T160216_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200129T155421_20200129T160106_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).

### 6.3 L2 FDM 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.

Number of products with errors:

0

### 6.4 L2 FDM Auxiliary Correction Error Check

Each product is checked to detect auxiliary corrections flagged by the ground-station processing chain as missing or containing errors.

Number of products with errors: 40

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200128T235038_20200129T000148_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T000447_20200129T001913_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T003459_20200129T003944_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T005235_20200129T010354_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T021145_20200129T023839_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T031212_20200129T033233_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T033312_20200129T033805_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T044109_20200129T051718_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T053135_20200129T060527_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T075707_20200129T080004_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T081628_20200129T083618_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T084926_20200129T092208_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T092501_20200129T092626_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T094747_20200129T101100_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T102907_20200129T104504_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T105128_20200129T105955_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T110251_20200129T110259_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T111919_20200129T113530_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T120823_20200129T122337_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T122549_20200129T123510_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T130322_20200129T131033_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T131944_20200129T133423_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T140551_20200129T141021_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T143639_20200129T143700_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T144647_20200129T144957_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T152649_20200129T152923_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T152926_20200129T155234_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T170556_20200129T172833_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T174214_20200129T174412_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T175717_20200129T183119_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T191511_20200129T191522_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T192053_20200129T192258_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T193706_20200129T194534_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T194819_20200129T201038_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T202403_20200129T203652_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2_20200129T204644_20200129T205112_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T211544_20200129T214920_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200129T220733_20200129T223847_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records

CS OFFE SIR FDM 2 202001201225814 202001201230614 C001	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS OFFE SIR FDM 2 202001291231155 202001291232832 C001	 There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records

### 6.5 L2 FDM Measurement Confidence Data Check

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CryoSat L2 data includes a measurement confidence flag (field 8) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200129T113744_20200129T115228_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220200129T122549_20200129T123510_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220200129T155421_20200129T160106_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200129T173645_20200129T173759_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200129T224010_20200129T224120_C001	Attitude correction missing	The attitude has not been corrected

#### 6.6 L2 FDM Range Measurement Check

CryoSat L2 data includes a CFI (field 17) and OCOG (field 22) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 29

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200128T235038_20200129T000148_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T000447_20200129T001913_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T003459_20200129T003944_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T005235_20200129T010354_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T021145_20200129T023839_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T031212_20200129T033233_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T033312_20200129T033805_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T044109_20200129T051718_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T084926_20200129T092208_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T094747_20200129T101100_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T102907_20200129T104504_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T105128_20200129T105955_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T120823_20200129T122337_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T122549_20200129T123510_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T130322_20200129T131033_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T140551_20200129T141021_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T143639_20200129T143700_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T144647_20200129T144957_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T152926_20200129T155234_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T170556_20200129T172833_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T174214_20200129T174412_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T175717_20200129T183119_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T191511_20200129T191522_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T202403_20200129T203652_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T204644_20200129T205112_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T211544_20200129T214920_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.

CS_OFFL_SIR_FDM_220200129T220733_20200129T223847_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T225814_20200129T230614_C001		The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T231155_20200129T232832_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.

# 6.7 L2 FDM SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH-Squared Averaging Status flag (field 39) and an CFI (field 45) and OCOG (field 51) Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 29		
Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200128T235038_20200129T000148_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T000447_20200129T001913_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T003459_20200129T003944_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T005235_20200129T010354_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T021145_20200129T023839_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T031212_20200129T033233_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T033312_20200129T033805_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T044109_20200129T051718_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T084926_20200129T092208_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T094747_20200129T101100_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T102907_20200129T104504_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T105128_20200129T105955_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T120823_20200129T122337_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T122549_20200129T123510_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T130322_20200129T131033_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T140551_20200129T141021_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T143639_20200129T143700_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T144647_20200129T144957_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T152926_20200129T155234_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T170556_20200129T172833_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T174214_20200129T174412_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records.
CS_OFFL_SIR_FDM_220200129T175717_20200129T183119_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T191511_20200129T191522_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T202403_20200129T203652_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T204644_20200129T205112_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T211544_20200129T214920_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T220733_20200129T223847_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T225814_20200129T230614_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220200129T231155_20200129T232832_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.

#### 6.8 L2 FDM Ocean Retracking Quality Check

CS OFFL SIR FDM 2 20200129T231055 20200129T231151 C001

CS\_OFFL\_SIR\_FDM\_2\_\_20200129T231155\_20200129T232832\_C001

CS\_OFFL\_SIR\_FDM\_2\_\_20200129T234526\_20200129T235912\_C001

CryoSat L2 data includes an ocean retracking quality flag (field 66) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set. Number of products with errors: Product The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200128T235038\_20200129T000148\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T000447 20200129T001913 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T003459\_20200129T003944\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean  ${\tt CS\_OFFL\_SIR\_FDM\_2\_20200129T005235\_20200129T010354\_C001}$ Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T021145\_20200129T023839\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T031212\_20200129T033233\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T033312\_20200129T033805\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T035053 20200129T041822 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T044109\_20200129T051718\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T053135 20200129T060527 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T061820\_20200129T062004\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T073512\_20200129T074412\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T081628 20200129T083618 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T084926 20200129T092208 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T094747\_20200129T101100\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T102907 20200129T104504 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T105128 20200129T105955 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T111919\_20200129T113530\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T113744 20200129T115228 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T120823\_20200129T122337\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T122549 20200129T123510 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T130322\_20200129T131033\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T131035 20200129T131444 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T131944 20200129T133423 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T140551\_20200129T141021\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T143639\_20200129T143700\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T144647 20200129T144957 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T145005\_20200129T151351\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T152926 20200129T155234 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T174214\_20200129T174412\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T175717\_20200129T183119\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T191511 20200129T191522 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T193706 20200129T194534 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T194819 20200129T201038 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T202403\_20200129T203652\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T204644\_20200129T205112\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T211544\_20200129T214920\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20200129T220733 20200129T223847 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20200129T225814\_20200129T230614\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records.

Ocean Retracking Quality Flag

Ocean Retracking Quality Flag

Ocean Retracking Quality Flag

The Ocean Retracking Quality Flag is set indicating the CFI Ocean

Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean

Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean

Retracker was not successfully executed for one or more records.

# 7. 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	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR1LRM_0_	167	167	167	0	0
SIR1SAR_0_	144	144	144	0	0
SIR1SIN_0_	99	99	99	0	0
SIR2SIN_0_	104	104	104	0	0
SIR_FDM_1B	167	167	3	0	164
SIR FDM 2	163	163	110	53	0

164		
55		

0

Number of products with missing QCC reports: