

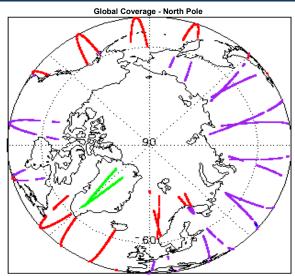
1. Overview

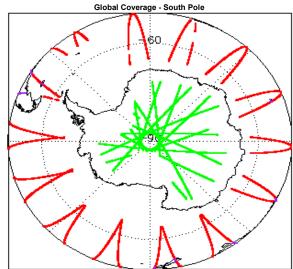
Report Production Date:	13-Jan-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data

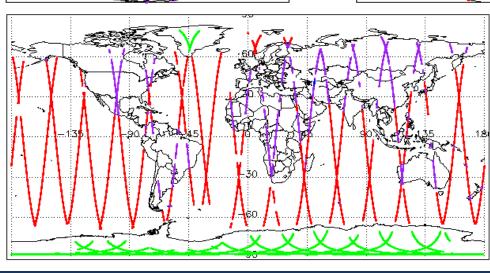
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2, 5.2 and 6.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary 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

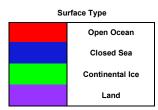
Mission / Instru	ment News
11-Jan-2020	None
12-Jan-2020	None
13-Jan-2020	Nothing planned

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:

Product	Test Failed
CS_OPER_SIR1SAR_020200112T071910_20200112T072532_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020200112T085502_20200112T090431_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020200112T103838_20200112T104328_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0_20200112T203439_20200112T204352_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020200112T205552_20200112T205837_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0_20200112T220845_20200112T220954_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200112T005853_20200112T010240_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200112T020700_20200112T020822_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200112T053355_20200112T053938_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200112T080754_20200112T080919_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200112T145604_20200112T145808_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200112T035857_20200112T040245_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200112T041832_20200112T042217_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200112T063751_20200112T063906_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0_20200112T092325_20200112T092510_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020200112T095340_20200112T095713_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.

5. Level 1B FDM Data Quality Check

Percentage of processing errors detected greater than minimum acceptable threshold.

5.1 L1B FDM Product Format Check

CS_OPER_SIR2SIN_0__20200112T145604_20200112T145808_0001.HDR

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:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200112T170743_20200112T171052_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200112T171052_20200112T171251_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200112T184710_20200112T184805_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200112T184805_20200112T184822_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200112T202710_20200112T202715_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200112T202715_20200112T202732_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_20200112T170743_20200112T171052_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200112T184710_20200112T184805_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200112T202710_20200112T202715_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.

Number of products with errors:

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.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20200112T041408_20200112T041726_C001	IECHO ERROR IRK 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_20200112T170743_20200112T171052_C001	Attitude correction missing	The attitude has not been corrected

CS_OFFL_SIR_FDM_1B_20200112T184710_20200112T184805_C001

Attitude correction missing

The attitude has not been corrected

The attitude has not been corrected

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).

Number of products with errors:

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:

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Product	Test Failed
CS_OFFL_SIR_FDM_220200112T170743_20200112T171052_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200112T171052_20200112T171251_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200112T184710_20200112T184805_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200112T184805_20200112T184822_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200112T202710_20200112T202715_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200112T202715_20200112T202732_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:

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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.

Product	Test Failed	Description
CS OFFL SIR FDM 2 20200112T010240 20200112T011212 C001	Sea State Bias Correction, Altimetric	There is an error with the Altimetric Wind Speed and Sea State Bias
CS OFFL SIR FDM 2 20200112T011448 20200112T012924 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T020436 20200112T020659 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T020822 20200112T021211 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T021228 20200112T021533 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T042217 20200112T044813 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T042217_20200112T044013_C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S_OFFL_SIR_FDM_220200112T060648_20200112T062751_C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S_OFFL_SIR_FDM_220200112T064138_20200112T071526_C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S_OFFL_SIR_FDM_220200112T084535_20200112T085502_C001	Wind Speed	Correction for one or more records There is an error with the Sea State Bias Correction for one or more
S_OFFL_SIR_FDM_220200112T090808_20200112T091108_C001	Sea State Bias Correction	records
S_OFFL_SIR_FDM_220200112T092655_20200112T093141_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
S_OFFL_SIR_FDM_220200112T093329_20200112T094511_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
S_OFFL_SIR_FDM_220200112T100549_20200112T103135_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
S_OFFL_SIR_FDM_220200112T104958_20200112T112117_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
S_OFFL_SIR_FDM_220200112T120148_20200112T120823_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
S_OFFL_SIR_FDM_220200112T121612_20200112T121619_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
S_OFFL_SIR_FDM_220200112T123641_20200112T124548_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
S_OFFL_SIR_FDM_220200112T125208_20200112T130347_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
S_OFFL_SIR_FDM_220200112T131836_20200112T132542_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
S_OFFL_SIR_FDM_220200112T132648_20200112T133336_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
S_OFFL_SIR_FDM_220200112T133516_20200112T134949_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
S_OFFL_SIR_FDM_220200112T141205_20200112T141518_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
S_OFFL_SIR_FDM_220200112T142038_20200112T142526_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
S_OFFL_SIR_FDM_220200112T155747_20200112T162401_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
S_OFFL_SIR_FDM_220200112T163645_20200112T170636_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
S_OFFL_SIR_FDM_220200112T181612_20200112T183825_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
S_OFFL_SIR_FDM_220200112T183831_20200112T184322_C001	Sea State Bias Correction, Altimetric	There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T185234 20200112T185315 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T185335 20200112T185428 C001	Wind Speed Sea State Bias Correction, Altimetric	Correction for one or more records There is an error with the Altimetric Wind Speed and Sea State Bias
S OFFL SIR FDM 2 20200112T190704 20200112T194153 C001	Wind Speed Sea State Bias Correction	Correction for one or more records There is an error with the Sea State Bias Correction for one or more
0	Saa State State Softwaren	records

CS_OFFL_SIR_FDM_2_20200112T195948_20200112T200207_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_220200112T205837_20200112T212044_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_220200112T214900_20200112T215610_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200112T215654_20200112T220134_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_220200112T222703_20200112T225950_C001	Sea State Bias Correction, Mean Sea Surface height, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed, the Sea State Bias Correction and the Mean Sea Surface Height for one or more records
CS_OFFL_SIR_FDM_220200112T231751_20200112T234802_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

6.5 L2 FDM Measurement Confidence Data Check

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_220200112T041408_20200112T041726_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220200112T170743_20200112T171052_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200112T184710_20200112T184805_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200112T202710_20200112T202715_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.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200112T010240_20200112T011212_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_220200112T011448_20200112T012924_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_220200112T020436_20200112T020659_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_220200112T020822_20200112T021211_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_220200112T021228_20200112T021533_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_220200112T042217_20200112T044813_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_220200112T055735_20200112T060645_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_220200112T060648_20200112T062751_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_220200112T064138_20200112T071526_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_220200112T084535_20200112T085502_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_220200112T100549_20200112T103135_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_2_20200112T120148_20200112T120823_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_220200112T123641_20200112T124548_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_220200112T125208_20200112T130347_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_220200112T132648_20200112T133336_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_220200112T133516_20200112T134949_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_2_20200112T142038_20200112T142526_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_2_20200112T163645_20200112T170636_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_220200112T181612_20200112T183825_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_220200112T183831_20200112T184322_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_220200112T205837_20200112T212044_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_220200112T222703_20200112T225950_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:

Test Failed Description Product The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T010240_20200112T011212_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag. SWH CS_OFFL_SIR_FDM_2__20200112T011448_20200112T012924_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T020436_20200112T020659_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T020822_20200112T021211_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. 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 CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T021228_20200112T021533_C001 Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records, CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T042217_20200112T044813_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ianored for these records The master fail flag is set by the CFI call, for one or more records, CFI Backscatter Status Flag, SWH indicating the values stored in fields #41, #42, #43 and #44 should be CS_OFFL_SIR_FDM_2__20200112T055735_20200112T060645_C001 Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records, CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T060648 20200112T062751 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T064138 20200112T071526 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T084535 20200112T085502 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T100549 20200112T103135 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T120148_20200112T120823_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH Squared Averaging Status Flag CS_OFFL_SIR_FDM_2__20200112T123641_20200112T124548_C001 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, CFI Backscatter Status Flag. SWH CS_OFFL_SIR_FDM_2__20200112T125208_20200112T130347_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH Squared Averaging Status Flag CS_OFFL_SIR_FDM_2__20200112T132648_20200112T133336_C001 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, CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T133516_20200112T134949_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T142038_20200112T142526_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records The master fail flag is set by the CFI call, for one or more records. CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T163645_20200112T170636_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records 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 CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T181612_20200112T183825_C001 Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records, CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T183831 20200112T184322 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS OFFL SIR FDM 2 20200112T205837 20200112T212044 C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records. The master fail flag is set by the CFI call, for one or more records CFI Backscatter Status Flag, SWH CS_OFFL_SIR_FDM_2__20200112T222703_20200112T225950_C001 indicating the values stored in fields #41, #42, #43 and #44 should be Squared Averaging Status Flag ignored for these records.

6.8 L2 FDM Ocean Retracking Quality Check

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.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200112T000835_20200112T002106_C001	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.
CS_OFFL_SIR_FDM_220200112T010240_20200112T011212_C001	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.
CS_OFFL_SIR_FDM_220200112T011448_20200112T012924_C001	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.
CS_OFFL_SIR_FDM_220200112T020436_20200112T020659_C001	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.
CS_OFFL_SIR_FDM_220200112T020822_20200112T021211_C001	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.
CS_OFFL_SIR_FDM_220200112T021228_20200112T021533_C001	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.
CS_OFFL_SIR_FDM_220200112T025150_20200112T030838_C001	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.
CS_OFFL_SIR_FDM_220200112T032215_20200112T034720_C001	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.
CS_OFFL_SIR_FDM_220200112T042217_20200112T044813_C001	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.
CS_OFFL_SIR_FDM_220200112T050117_20200112T052918_C001	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.
CS_OFFL_SIR_FDM_220200112T055735_20200112T060645_C001	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.
CS_OFFL_SIR_FDM_220200112T060648_20200112T062751_C001	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.

CS_OFFL_SIR_FDM_220200112T064138_20200112T071526_C001	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.
CS_OFFL_SIR_FDM_220200112T072827_20200112T073024_C001	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.
CS_OFFL_SIR_FDM_220200112T082022_20200112T084249_C001	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.
CS_OFFL_SIR_FDM_220200112T084535_20200112T085502_C001	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.
CS_OFFL_SIR_FDM_220200112T093329_20200112T094511_C001	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.
CS_OFFL_SIR_FDM_220200112T100002_20200112T100539_C001	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.
CS_OFFL_SIR_FDM_220200112T100549_20200112T103135_C001	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.
CS_OFFL_SIR_FDM_220200112T104958_20200112T112117_C001	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.
CS_OFFL_SIR_FDM_220200112T120148_20200112T120823_C001	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.
CS_OFFL_SIR_FDM_220200112T123641_20200112T124548_C001	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.
CS_OFFL_SIR_FDM_220200112T125208_20200112T130347_C001	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.
CS_OFFL_SIR_FDM_220200112T132648_20200112T133336_C001	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.
CS_OFFL_SIR_FDM_220200112T133516_20200112T134949_C001	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.
CS_OFFL_SIR_FDM_220200112T141205_20200112T141518_C001	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.
CS_OFFL_SIR_FDM_220200112T141649_20200112T141915_C001	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.
CS_OFFL_SIR_FDM_220200112T142038_20200112T142526_C001	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.
CS_OFFL_SIR_FDM_220200112T142816_20200112T144438_C001	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.
CS_OFFL_SIR_FDM_220200112T163645_20200112T170636_C001	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.
CS_OFFL_SIR_FDM_220200112T173317_20200112T173353_C001	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.
CS_OFFL_SIR_FDM_220200112T181612_20200112T183825_C001	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.
CS_OFFL_SIR_FDM_220200112T183831_20200112T184322_C001	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.
CS_OFFL_SIR_FDM_220200112T190704_20200112T194153_C001	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.
CS_OFFL_SIR_FDM_220200112T205837_20200112T212044_C001	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.
CS_OFFL_SIR_FDM_220200112T213413_20200112T214713_C001	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.
CS_OFFL_SIR_FDM_220200112T214900_20200112T215610_C001	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.
CS_OFFL_SIR_FDM_2_20200112T215654_20200112T220134_C001	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.
CS_OFFL_SIR_FDM_2_20200112T222703_20200112T225950_C001	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.
CS_OFFL_SIR_FDM_2_20200112T231751_20200112T234802_C001	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.

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_	178	178	178	0	0
SIR1SAR_0_	140	140	140	0	0
SIR1SIN_0_	114	114	114	0	0
SIR2SIN_0_	115	115	115	0	0
SIR_FDM_1B	178	178	3	0	175
SIR FDM 2	175	175	118	57	0

7.1 QCC Errors

Number of QCC reports with errors:

7.2 QCC Warnings

Number of QCC reports with warnings

59

175

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0