1. Overview

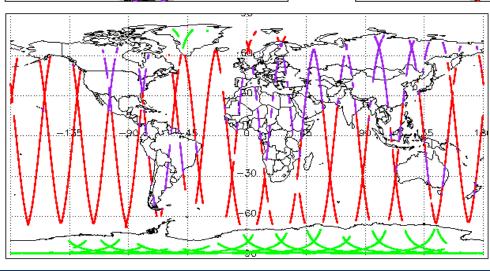| Report Production Date:	23-Jan-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data

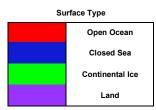| Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2, 5.2 and 6.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary 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 / Instrument News	
21-Jan-2020	None
22-Jan-2020	None
23-Jan-2020	Nothing planned

2. Global Coverage

Global Coverage - North Pole

Global Coverage - South Pole

Surface Type	
	Open Ocean
	Closed Sea
	Continental Ice
	Land

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 & 2

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).

Number of products with errors: 0

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: 13

Product	Test Failed
CS_OPER_SIR1SAR_0__20200122T035023_20200122T035929_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200122T091931_20200122T092118_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200122T123338_20200122T123551_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200122T184359_20200122T185147_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200122T192946_20200122T193224_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200122T235734_20200122T235932_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200122T011740_20200122T011928_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200122T033841_20200122T034041_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200122T161608_20200122T161719_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200122T171035_20200122T171834_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200122T233747_20200122T234004_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200122T080226_20200122T080530_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200122T125952_20200122T130012_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: 0

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: 8

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200122T152116_20200122T152207_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T165253_20200122T165811_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T165811_20200122T170027_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T183438_20200122T183543_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T183543_20200122T183739_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T201340_20200122T201508_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T215316_20200122T215707_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200122T215707_20200122T215752_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: 3

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200122T165253_20200122T165811_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200122T183438_20200122T183543_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200122T215316_20200122T215707_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: 0

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: 0

5.6 L1B FDM Auxilary 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: 0

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: 3

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20200122T165253_20200122T165811_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200122T183438_20200122T183543_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200122T215316_20200122T215707_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).

Number of products with errors: 0

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: 8

Product	Test Failed
CS_OFFL_SIR_FDM_2__20200122T152116_20200122T152207_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T165253_20200122T165811_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T165811_20200122T170027_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T183438_20200122T183543_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T183543_20200122T183739_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T201340_20200122T201508_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T215316_20200122T215707_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200122T215707_20200122T215752_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_2__20200121T235541_20200122T000857_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__20200122T001111_20200122T002315_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__20200122T005034_20200122T005921_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__20200122T005924_20200122T010059_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__20200122T010239_20200122T011704_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__20200122T015002_20200122T015449_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__20200122T023454_20200122T025633_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__20200122T041039_20200122T043601_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__20200122T045000_20200122T052240_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__20200122T054656_20200122T060623_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__20200122T060928_20200122T061530_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__20200122T062924_20200122T070243_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__20200122T080807_20200122T083037_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20200122T083322_20200122T084303_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__20200122T094801_20200122T101803_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__20200122T101912_20200122T102043_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__20200122T104447_20200122T110903_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__20200122T113200_20200122T115415_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_2__20200122T122047_20200122T123338_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__20200122T123958_20200122T124525_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__20200122T124926_20200122T125102_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__20200122T132303_20200122T132546_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__20200122T135953_20200122T140543_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__20200122T140827_20200122T143231_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__20200122T144607_20200122T151003_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20200122T153701_20200122T161101_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__20200122T162440_20200122T165250_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__20200122T171834_20200122T175002_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__20200122T184125_20200122T184211_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__20200122T185502_20200122T192946_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__20200122T195730_20200122T200154_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__20200122T201340_20200122T201508_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__20200122T203434_20200122T204342_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20200122T204628_20200122T210823_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__20200122T212202_20200122T214406_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__20200122T214458_20200122T214920_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__20200122T215316_20200122T215707_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20200122T215707_20200122T215752_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_2__20200122T222049_20200122T224748_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__20200122T230540_20200122T231808_C001	Sea State Bias Correction	There is an error with the 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: 3

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200122T165253_20200122T165811_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20200122T183438_20200122T183543_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20200122T215316_20200122T215707_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: 27

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200121T235541_20200122T000857_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__20200122T001111_20200122T002315_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__20200122T005034_20200122T005921_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__20200122T005924_20200122T010059_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__20200122T010239_20200122T011704_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__20200122T015002_20200122T015449_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__20200122T023454_20200122T025633_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__20200122T041039_20200122T043601_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__20200122T045000_20200122T052240_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__20200122T054656_20200122T060623_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__20200122T062924_20200122T070243_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__20200122T094801_20200122T101803_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__20200122T113200_20200122T115415_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__20200122T122047_20200122T123338_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__20200122T123958_20200122T124525_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__20200122T124926_20200122T125102_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__20200122T132303_20200122T132546_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__20200122T135953_20200122T140543_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__20200122T153701_20200122T161101_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__20200122T162440_20200122T165250_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__20200122T171834_20200122T175002_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__20200122T185502_20200122T192946_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__20200122T195730_20200122T200154_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.

Product		
CS_OFFL_SIR_FDM_2__20200122T204628_20200122T210823_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__20200122T212202_20200122T214406_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__20200122T214458_20200122T214920_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__20200122T222049_20200122T224748_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: 27

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200121T235541_20200122T000857_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_2__20200122T001111_20200122T002315_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_2__20200122T005034_20200122T005921_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_2__20200122T005924_20200122T010059_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_2__20200122T010239_20200122T011704_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_2__20200122T015002_20200122T015449_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_2__20200122T023454_20200122T025633_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_2__20200122T041039_20200122T043601_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_2__20200122T045000_20200122T052240_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_2__20200122T054656_20200122T060623_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_2__20200122T062924_20200122T070243_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_2__20200122T094801_20200122T101803_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_2__20200122T113200_20200122T115415_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_2__20200122T122047_20200122T123338_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_2__20200122T123958_20200122T124525_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_2__20200122T124926_20200122T125102_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_2__20200122T132303_20200122T132546_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_2__20200122T135953_20200122T140543_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_2__20200122T153701_20200122T161101_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_2__20200122T162440_20200122T165250_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_2__20200122T171834_20200122T175002_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_2__20200122T185502_20200122T192946_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_2__20200122T195730_20200122T200154_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_2__20200122T204628_20200122T210823_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_2__20200122T212202_20200122T214406_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_2__20200122T214458_20200122T214920_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_2__20200122T222049_20200122T224748_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

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: 36

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200121T235541_20200122T000857_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__20200122T001111_20200122T002315_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__20200122T005034_20200122T005921_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__20200122T005924_20200122T010059_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__20200122T010239_20200122T011704_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__20200122T013935_20200122T014523_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__20200122T015002_20200122T015449_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__20200122T015731_20200122T020320_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__20200122T023454_20200122T025633_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__20200122T031002_20200122T033402_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__20200122T041039_20200122T043601_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__20200122T045000_20200122T052240_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__20200122T054656_20200122T060623_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__20200122T062924_20200122T070243_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__20200122T080807_20200122T083037_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__20200122T083322_20200122T084303_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__20200122T091328_20200122T091931_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__20200122T094801_20200122T101803_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__20200122T113200_20200122T115415_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__20200122T122047_20200122T123338_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__20200122T123958_20200122T124525_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__20200122T124926_20200122T125102_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__20200122T132303_20200122T132546_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__20200122T135953_20200122T140543_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__20200122T140827_20200122T143231_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__20200122T144607_20200122T151003_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__20200122T153701_20200122T161101_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__20200122T162440_20200122T165250_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__20200122T171834_20200122T175002_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__20200122T185502_20200122T192946_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__20200122T195730_20200122T200154_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__20200122T204628_20200122T210823_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__20200122T212202_20200122T214406_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__20200122T214458_20200122T214920_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__20200122T222049_20200122T224748_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__20200122T230540_20200122T231808_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_	173	173	173	0	0
SIR1SAR_0_	133	133	133	0	0
SIR1SIN_0_	109	109	109	0	0
SIR2SIN_0_	105	105	105	0	0
SIR_FDM_1B	173	173	3	0	170
SIR_FDM_2	169	169	113	56	0

7.1 QCC Errors

Number of QCC reports with errors: 170

7.2 QCC Warnings

Number of QCC reports with warnings   58

7.3 Missing QCC Reports

Number of products with missing QCC reports: 0