CRYOSAT

IDEAS+

1. Overview

Report Production Date:	14-Jan-2019
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data

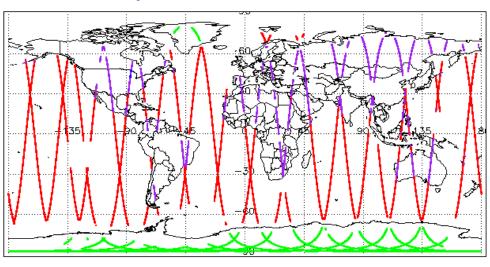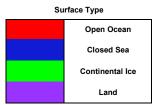| Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary Data 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	
11-Jan-2019	None
12-Jan-2019	None
13-Jan-2019	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

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: 7

Product	Test Failed
CS_OPER_SIR1SAR_0__20190112T171641_20190112T172355_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20190112T220914_20190112T221258_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20190112T084453_20190112T084839_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20190112T090351_20190112T090942_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20190112T200716_20190112T201249_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20190112T153612_20190112T153731_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20190112T200716_20190112T201249_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: 0

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: 2

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20190112T103349_20190112T103407_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20190112T134732_20190112T134850_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 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: 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: 31

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20190111T235614_20190111T235941_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T000334_20190112T001416_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T001953_20190112T003730_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T005017_20190112T005048_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T005349_20190112T005628_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T005701_20190112T005742_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T010124_20190112T010259_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T010303_20190112T011000_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T011335_20190112T011930_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T012254_20190112T012901_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T014240_20190112T021556_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T022949_20190112T023049_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T023202_20190112T023211_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T023521_20190112T023554_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T023616_20190112T023634_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T024100_20190112T024245_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T024911_20190112T030819_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T031025_20190112T031534_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T032109_20190112T035535_C001	Blank block, Block degraded	A blank block has been inserted for record padding

CS_OFFL_SIR_FDM_1B_20190112T035705_20190112T035813_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T042013_20190112T042433_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T042529_20190112T044306_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T045237_20190112T045437_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T050141_20190112T051909_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T052338_20190112T053047_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T053540_20190112T053631_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T053636_20190112T053636_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T053639_20190112T053716_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T053719_20190112T053812_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T055044_20190112T060832_C001	Blank block, Block degraded	A blank block has been inserted for record padding
CS_OFFL_SIR_FDM_1B_20190112T060955_20190112T062348_C001	Blank block, Block degraded	A blank block has been inserted for record padding

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: 0

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: 31

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T000334_20190112T001416_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__20190112T010303_20190112T011000_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__20190112T012254_20190112T012901_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__20190112T014240_20190112T021556_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__20190112T024911_20190112T030819_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__20190112T032109_20190112T035535_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__20190112T042529_20190112T044306_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__20190112T052338_20190112T053047_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__20190112T060955_20190112T062348_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__20190112T064032_20190112T065606_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__20190112T065808_20190112T070732_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__20190112T073538_20190112T074634_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__20190112T082015_20190112T083513_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__20190112T091208_20190112T094552_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__20190112T113814_20190112T115856_C001	Sea State Bias Correction, Mean Sea Surface height	There is an error with the Sea State Bias Correction and the Mean Sea Surface Height for one or more records
CS_OFFL_SIR_FDM_2__20190112T123019_20190112T130311_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__20190112T131704_20190112T132303_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__20190112T140926_20190112T144309_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__20190112T145601_20190112T151542_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__20190112T154722_20190112T162108_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__20190112T163455_20190112T163516_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__20190112T163651_20190112T170403_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__20190112T172813_20190112T173825_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__20190112T174306_20190112T180043_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__20190112T183336_20190112T184600_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__20190112T191259_20190112T192325_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__20190112T201837_20190112T202536_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__20190112T205615_20190112T205938_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__20190112T210123_20190112T211852_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__20190112T222146_20190112T222254_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__20190112T223303_20190112T225822_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: 3

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T091208_20190112T094552_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_2__20190112T103349_20190112T103407_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20190112T134732_20190112T134850_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: 15

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T010303_20190112T011000_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__20190112T014240_20190112T021556_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__20190112T032109_20190112T035535_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__20190112T042529_20190112T044306_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__20190112T064032_20190112T065606_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__20190112T065808_20190112T070732_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__20190112T073538_20190112T074634_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__20190112T082015_20190112T083513_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__20190112T091208_20190112T094552_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__20190112T154722_20190112T162108_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__20190112T163651_20190112T170403_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__20190112T174306_20190112T180043_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__20190112T191259_20190112T192325_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__20190112T201837_20190112T202536_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__20190112T205615_20190112T205938_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) 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: 15

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T010303_20190112T011000_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__20190112T014240_20190112T021556_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__20190112T032109_20190112T035535_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__20190112T042529_20190112T044306_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__20190112T064032_20190112T065606_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__20190112T065808_20190112T070732_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__20190112T073538_20190112T074634_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__20190112T082015_20190112T083513_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__20190112T091208_20190112T094552_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.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T154722_20190112T162108_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__20190112T163651_20190112T170403_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__20190112T174306_20190112T180043_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__20190112T191259_20190112T192325_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__20190112T201837_20190112T202536_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__20190112T205615_20190112T205938_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: 33

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20190112T000334_20190112T001416_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__20190112T010303_20190112T011000_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__20190112T014240_20190112T021556_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__20190112T032109_20190112T035535_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__20190112T042013_20190112T042433_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__20190112T042529_20190112T044306_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__20190112T064032_20190112T065606_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__20190112T065808_20190112T070732_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__20190112T073538_20190112T074634_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__20190112T082015_20190112T083513_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__20190112T091208_20190112T094552_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__20190112T095914_20190112T102426_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__20190112T105602_20190112T110735_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__20190112T111311_20190112T112353_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__20190112T113814_20190112T115856_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__20190112T115859_20190112T120613_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__20190112T123019_20190112T130311_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__20190112T140926_20190112T144309_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__20190112T145601_20190112T151542_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__20190112T154722_20190112T162108_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__20190112T163651_20190112T170403_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__20190112T172813_20190112T173825_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__20190112T174306_20190112T180043_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__20190112T183336_20190112T184600_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__20190112T191259_20190112T192325_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__20190112T192504_20190112T193934_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__20190112T201837_20190112T202536_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__20190112T205615_20190112T205938_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__20190112T210123_20190112T211852_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__20190112T213228_20190112T220709_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__20190112T222146_20190112T222254_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__20190112T223303_20190112T225822_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__20190112T231210_20190112T232325_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_	160	160	160	0	0
SIR1SAR_0_	124	124	124	0	0
SIR1SIN_0_	101	101	101	0	0
SIR2SIN_0_	106	106	106	0	0
SIR_FDM_1B	160	160	160	0	0
SIR_FDM_2	158	158	158	0	0

7.1 QCC Errors

Number of QCC reports with errors: 0

7.2 QCC Warnings

Number of QCC reports with warnings   0

7.3 Missing QCC Reports

Number of products with missing QCC reports: 1

Product name
CS_OPER_SIR2SIN_0__20190112T135314_20190112T135314_0001