QA4EO Daily Report for FDM data: 09/02/2020

1. Overview

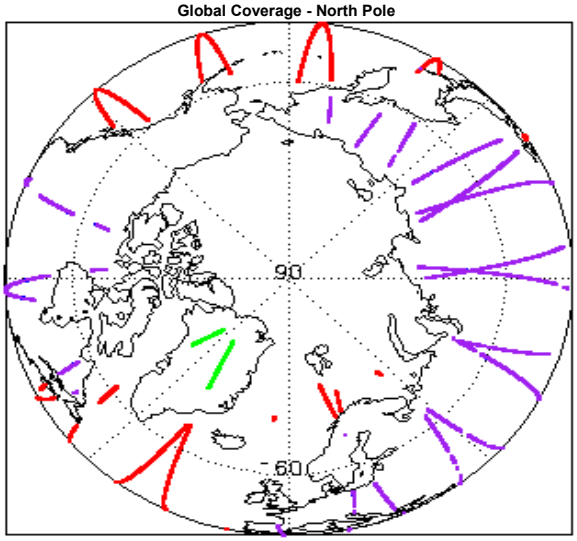
Report Production Date:	10-Feb-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data

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	See Section 5.5 and 6.3
Auxiliary Correction Error Check	See Section 5.6 and 6.4
Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8

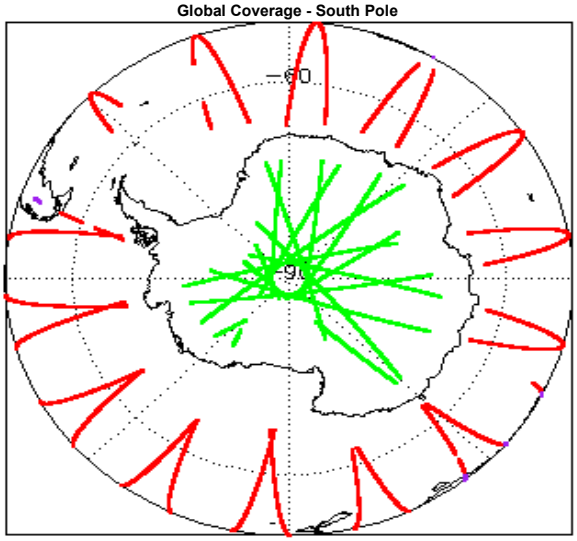
Mission / Instrument News	
08-Feb-2020	Due to connectivity issues in Kiruna, L0 data and AUX files dissemination was interrupted approximately from 2020-02-08 14:00:00 to 2020-02-09 22:00:00
09-Feb-2020	Due to connectivity issues in Kiruna, L0 data and AUX files dissemination was interrupted approximately from 2020-02-08 14:00:00 to 2020-02-09 22:00:00
10-Feb-2020	Nothing planned

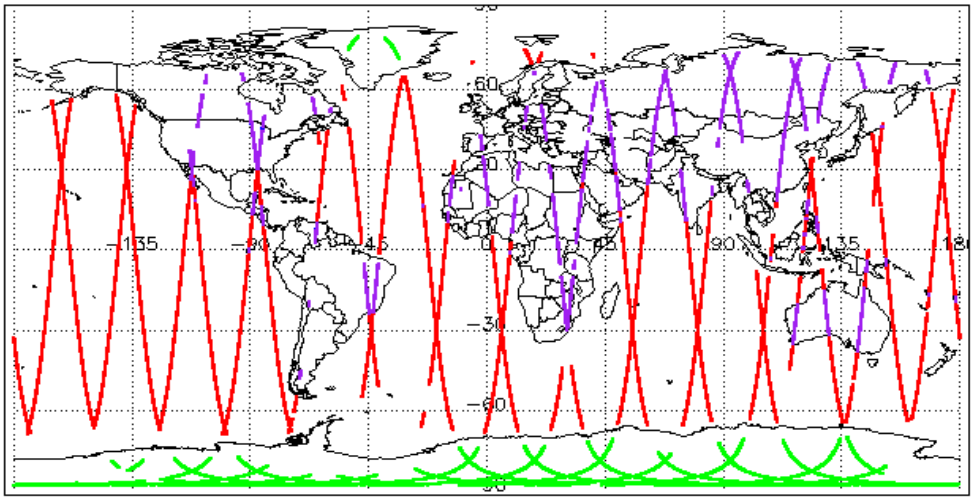
2. Global Coverage

Global Coverage - North Pole

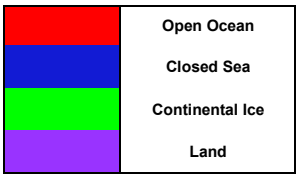


Global Coverage - South Pole





Surface Type



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: 14

Product	Test Failed
CS_OPER_SIR1LRM_0__20200209T074540_20200209T082034_0001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200209T015538_20200209T015644_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200209T200213_20200209T201212_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200209T204606_20200209T204730_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0__20200209T231009_20200209T231300_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200209T050203_20200209T050349_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200209T101018_20200209T101445_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200209T105401_20200209T105636_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200209T213650_20200209T213805_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_0__20200209T222536_20200209T222716_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200209T074024_20200209T074332_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200209T101018_20200209T101445_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200209T223455_20200209T223644_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0__20200209T231756_20200209T232038_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: 5

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200209T145819_20200209T145905_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200209T145905_20200209T145938_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200209T163534_20200209T163759_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200209T181212_20200209T181337_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200209T181337_20200209T181443_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: 2

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200209T145819_20200209T145905_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200209T181212_20200209T181337_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: 30

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20200209T120015_20200209T121142_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropo
CS_OFFL_SIR_FDM_1B_20200209T121745_20200209T121816_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T122455_20200209T122542_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T122739_20200209T122904_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T122952_20200209T123118_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T123448_20200209T124239_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections

CS_OFFL_SIR_FDM_1B_20200209T124426_20200209T130000_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T130815_20200209T130921_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131316_20200209T131433_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131435_20200209T131450_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131453_20200209T131508_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131511_20200209T131517_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131521_20200209T131558_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131602_20200209T131604_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131607_20200209T131609_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131615_20200209T131623_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131626_20200209T131641_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131646_20200209T131707_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131711_20200209T131805_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131808_20200209T131845_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T131849_20200209T132217_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T133800_20200209T141048_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T141313_20200209T141525_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T141543_20200209T142129_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T142350_20200209T144933_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T145317_20200209T145803_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T145819_20200209T145905_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T145905_20200209T145938_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T145951_20200209T145953_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T151301_20200209T151341_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T151504_20200209T151813_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T152058_20200209T154927_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T155236_20200209T155349_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T155523_20200209T155949_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T160236_20200209T162954_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T162957_20200209T163106_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T163110_20200209T163122_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T163124_20200209T163155_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T163201_20200209T163207_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T163213_20200209T163232_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T163305_20200209T163500_C001	Dry Tropospheric Correction, Wet Troposl	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections

CS_OFFL_SIR_FDM_1B_20200209T163534_20200209T163759_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T164036_20200209T164049_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T165518_20200209T172833_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T173433_20200209T174009_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T174132_20200209T174753_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T175138_20200209T175708_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T175825_20200209T180530_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T180714_20200209T180835_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T181108_20200209T181132_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T181135_20200209T181156_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T181212_20200209T181337_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T181337_20200209T181443_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T181905_20200209T182035_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T183358_20200209T190820_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T191337_20200209T191848_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T192030_20200209T194031_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T194346_20200209T194845_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T194923_20200209T195054_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T201212_20200209T203428_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T203506_20200209T204605_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T205102_20200209T205336_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T205342_20200209T205349_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T205352_20200209T205752_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T205948_20200209T212843_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections
CS_OFFL_SIR_FDM_1B_20200209T212859_20200209T213613_C001	Dry Tropospheric Correction, Wet Tropos	Due to a missing Forecast Auxiliary Files there is an error with the Dry Tropospheric, Wet Tropospheric and Inverse Barometric Corrections

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: 4

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20200209T103442_20200209T104823_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_FDM_1B_20200209T145819_20200209T145905_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200209T163213_20200209T163232_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_FDM_1B_20200209T181212_20200209T181337_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: 20

Product	Test Failed
CS_OFFL_SIR_FDM_2__20200209T001809_20200209T002243_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T020227_20200209T020231_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T020545_20200209T020628_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T024150_20200209T024159_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T024205_20200209T024529_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T053822_20200209T054354_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T100222_20200209T100227_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T115757_20200209T115816_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T122455_20200209T122542_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T122952_20200209T123118_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T142350_20200209T144933_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T145819_20200209T145905_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T145905_20200209T145938_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T151301_20200209T151341_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T163534_20200209T163759_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T181212_20200209T181337_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T181337_20200209T181443_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T220753_20200209T220932_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T223240_20200209T223247_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_2__20200209T232921_20200209T233114_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: 48

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200209T002409_20200209T003325_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__20200209T003620_20200209T003903_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__20200209T004042_20200209T005517_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__20200209T010857_20200209T014242_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__20200209T014506_20200209T014549_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__20200209T021210_20200209T023516_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__20200209T024750_20200209T031701_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__20200209T060658_20200209T064039_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__20200209T071400_20200209T073345_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__20200209T074540_20200209T082034_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__20200209T084459_20200209T084921_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__20200209T085017_20200209T090753_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__20200209T092614_20200209T094335_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__20200209T101525_20200209T103335_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__20200209T103442_20200209T104823_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__20200209T110518_20200209T112055_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__20200209T112256_20200209T113219_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__20200209T120015_20200209T121142_C001	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T121745_20200209T121816_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T122455_20200209T122542_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T122739_20200209T122904_C001	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T122952_20200209T123118_C001	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T123448_20200209T124239_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T124426_20200209T130000_C001	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T130815_20200209T130921_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131316_20200209T131433_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131435_20200209T131450_C001	Tropospheric Correction, U-Wind and V-Wind Component of the model wind	There is an error with the Atmospheric Corrections for one or more records

CS_OFFL_SIR_FDM_2__20200209T131453_20200209T131508_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131511_20200209T131517_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131521_20200209T131558_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131602_20200209T131604_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131607_20200209T131609_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131615_20200209T131623_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131626_20200209T131641_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131646_20200209T131707_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131711_20200209T131805_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131808_20200209T131845_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T131849_20200209T132217_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T133800_20200209T141048_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T141313_20200209T141525_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T141543_20200209T142129_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T142350_20200209T144933_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T145317_20200209T145803_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T145819_20200209T145905_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T145905_20200209T145938_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T151301_20200209T151341_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T151504_20200209T151813_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, U-Wind and V-Wind Component of the ionospheric	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T152058_20200209T154927_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T155236_20200209T155349_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T155523_20200209T155949_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T160236_20200209T162954_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T162957_20200209T163106_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163110_20200209T163122_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163124_20200209T163155_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163201_20200209T163207_C001	Tropospheric Correction, Inverse barometric Correction, Sea State Bias	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163213_20200209T163232_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163305_20200209T163500_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T163534_20200209T163759_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T164036_20200209T164049_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T165518_20200209T172833_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T173433_20200209T174009_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T174132_20200209T174753_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T175138_20200209T175708_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T175825_20200209T180530_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T014506_20200209T014549_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T180714_20200209T180835_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T181108_20200209T181132_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections for one or more records
CS_OFFL_SIR_FDM_2__20200209T181135_20200209T181156_C001	Dry Tropspheric Correction, Wet Tropospheric Correction, Inverse	There is an error with the Atmospheric Corrections 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: 4

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200209T103442_20200209T104823_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_2__20200209T145819_20200209T145905_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20200209T163213_20200209T163232_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_2__20200209T181212_20200209T181337_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: 22

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200209T002409_20200209T003325_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__20200209T003620_20200209T003903_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__20200209T010857_20200209T014242_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__20200209T014506_20200209T014549_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__20200209T024750_20200209T031701_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__20200209T071400_20200209T073345_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__20200209T074540_20200209T082034_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__20200209T084459_20200209T084921_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__20200209T085017_20200209T090753_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__20200209T092614_20200209T094335_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__20200209T103442_20200209T104823_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__20200209T110518_20200209T112055_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__20200209T112256_20200209T113219_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__20200209T120015_20200209T121142_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__20200209T142350_20200209T144933_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__20200209T152058_20200209T154927_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__20200209T160236_20200209T162954_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__20200209T165518_20200209T172833_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__20200209T201212_20200209T203428_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__20200209T220934_20200209T222106_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__20200209T233744_20200209T234716_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__20200209T234952_20200210T000451_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: 22

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20200209T002409_20200209T003325_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__20200209T003620_20200209T003903_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__20200209T010857_20200209T014242_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__20200209T014506_20200209T014549_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__20200209T024750_20200209T031701_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__20200209T071400_20200209T073345_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__20200209T074540_20200209T082034_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__20200209T084459_20200209T084921_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__20200209T085017_20200209T090753_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__20200209T092614_20200209T094335_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__20200209T103442_20200209T104823_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__20200209T110518_20200209T112055_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__20200209T112256_20200209T113219_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__20200209T120015_20200209T121142_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__20200209T142350_20200209T144933_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__20200209T152058_20200209T154927_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__20200209T160236_20200209T162954_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__20200209T165518_20200209T172833_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__20200209T201212_20200209T203428_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__20200209T220934_20200209T222106_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__20200209T233744_20200209T234716_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__20200209T234952_20200210T000451_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__20200208T234912_20200209T000031_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__20200209T002409_20200209T003325_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__20200209T003620_20200209T003903_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__20200209T010857_20200209T014242_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__20200209T014506_20200209T014549_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__20200209T021210_20200209T023516_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__20200209T024750_20200209T031701_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__20200209T034710_20200209T041421_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__20200209T042736_20200209T050203_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__20200209T052432_20200209T053448_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__20200209T060658_20200209T064039_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__20200209T071400_20200209T073345_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__20200209T074540_20200209T082034_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__20200209T084459_20200209T084921_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__20200209T085017_20200209T090753_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__20200209T092614_20200209T094335_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__20200209T094824_20200209T095541_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__20200209T103442_20200209T104823_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__20200209T110518_20200209T112055_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__20200209T112256_20200209T113219_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__20200209T120015_20200209T121142_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__20200209T124426_20200209T130000_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__20200209T133800_20200209T141048_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__20200209T142350_20200209T144933_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__20200209T152058_20200209T154927_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__20200209T160236_20200209T162954_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__20200209T165518_20200209T172833_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__20200209T183358_20200209T190820_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__20200209T192030_20200209T194031_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__20200209T201212_20200209T203428_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__20200209T205948_20200209T212843_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__20200209T220753_20200209T220932_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__20200209T220934_20200209T222106_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__20200209T224333_20200209T225609_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__20200209T233744_20200209T234716_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__20200209T234952_20200210T000451_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	177	1	0
SIR1SAR_0_	116	116	116	0	0
SIR1SIN_0_	104	104	104	0	0
SIR2SIN_0_	107	105	105	0	0
SIR_FDM_1B	178	178	2	0	176
SIR_FDM_2	175	175	128	47	0

7.1 QCC Errors

Number of QCC reports with errors: 176

7.2 QCC Warnings

Number of QCC reports with warnings 51

7.3 Missing QCC Reports

Number of products with missing QCC reports: 2

Product name
CS_OPER_SIR2SIN_0__20200209T232038_20200209T232041_0001
CS_OPER_SIR2SIN_0__20200209T232038_20200209T232041_0001