

IDEAS+ Daily Report for FDM data:

<u>28/09/2019</u>



1. Overview

Report Production Date:	30-Sep-2019	Check	Status
		Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ice Processor	Server check: calval-pds.cryosat.esa.int	Nominal
		Product Software Check	Nominal
Data Used:	L1 and L2 Fast Delivery Marine (FDM) Mode and L0 Data	Product Format Check	Nominal
		Product Header Analysis	See Section 4.2, 5.2 and 6.2
		Star Tracker Usage Check	See Section 5.3
		Calibration Usage Check	Nominal
		Auxiliary Data File Usage Check	Nominal
		Auxiliary Correction Error Check	See Section 6.4
		Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8

Mission / Instrument News		
27-Sep-2019	None	
28-Sep-2019	None	
29-Sep-2019	SIRAL unavailability from 29-Sep-2019 21:41:06 to 30-Sep-2019 09:35:16 due to an unplanned platform anomaly.	

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).

0

Number of products with errors:

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:
11

Product	Test Failed
CS_OPER_SIR1LRM_020190928T211644_20190928T215023_0001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020190928T004021_20190928T004328_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020190928T232817_20190928T233223_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020190928T042856_20190928T042949_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T023257_20190928T023624_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T072454_20190928T072951_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T094608_20190928T095019_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T115553_20190928T115718_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T170511_20190928T170642_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T183043_20190928T183700_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190928T225013_20190928T225826_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: 7

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20190928T010536_20190928T010609_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T010609_20190928T010713_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T043000_20190928T043247_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T210059_20190928T210208_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T210208_20190928T210344_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T223127_20190928T223801_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190928T223801_20190928T224404_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).

5.3 L1B FDM Star Tracker Usage Check

Each product is checked in order to ensure a valid star tracker file has been used in processing.
Number of products with errors: 3

Product	Test Failed	
CS_OFFL_SIR_FDM_1B_20190928T010536_20190928T010609_C001	No Star Tracker file used in the processing of this product	
CS_OFFL_SIR_FDM_1B_20190928T210059_20190928T210208_C001	No Star Tracker file used in the processing of this product	
CS_OFFL_SIR_FDM_1B_20190928T223127_20190928T223801_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.

0

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Number of products with errors:

5.5 L1B FDM Auxilary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct. Number of products with errors: 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:

5.7 L1B FDM Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 18) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20190928T010536_20190928T010609_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20190928T024144_20190928T024327_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_20190928T053534_20190928T054840_C001		The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo
CS_OFFL_SIR_FDM_1B_20190928T085103_20190928T091549_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_20190928T210059_20190928T210208_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20190928T223127_20190928T223801_C001	Attitude correction missing	The attitude has not been corrected

6. Level 2 FDM Data Quality Check

6.1 L2 FDM Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

6.2 L2 FDM Product Header Analysis

For all products, a series of pre-defined checks are carried out on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 12

Product	Test Failed
CS_OFFL_SIR_FDM_220190928T010536_20190928T010609_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T010609_20190928T010713_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T011008_20190928T011016_C001.DBL	Product filename start/stop differs slightly from start/stop validity due to rounding.
CS_OFFL_SIR_FDM_220190928T043000_20190928T043247_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T052508_20190928T052514_C001.DBL	Product filename start/stop differs slightly from start/stop validity due to rounding.
CS_OFFL_SIR_FDM_220190928T074426_20190928T074633_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T102249_20190928T102614_C001.DBL	Product filename start/stop differs slightly from start/stop validity due to rounding.
CS_OFFL_SIR_FDM_220190928T111747_20190928T112256_C001.DBL	Product filename start/stop differs slightly from start/stop validity due to rounding.
CS_OFFL_SIR_FDM_220190928T210059_20190928T210208_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T210208_20190928T210344_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T223127_20190928T223801_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220190928T223801_20190928T224404_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.

0

Number of products with errors: 39		
Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190927T234719_20190928T001849_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_220190928T003633_20190928T004020_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T012607_20190928T015902_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_220190928T030247_20190928T033748_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_220190928T044116_20190928T045539_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_220190928T050512_20190928T051718_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_220190928T055054_20190928T061020_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_220190928T063015_20190928T064040_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_220190928T064220_20190928T065558_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_220190928T072015_20190928T072453_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_220190928T073119_20190928T073431_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_220190928T073554_20190928T074304_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_220190928T074426_20190928T074633_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_220190928T081441_20190928T083435_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T085103_20190928T091549_C001	Sea State Bias Correction, Altimetric Wind Speed Sea State Bias Correction. Altimetric	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T093744_20190928T094007_C001	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_220190928T095019_20190928T101344_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_220190928T103002_20190928T110209_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_220190928T111747_20190928T112256_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_220190928T112628_20190928T114636_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_220190928T121054_20190928T124235_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_220190928T132516_20190928T132530_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_220190928T134929_20190928T141020_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T141306_20190928T142430_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_220190928T150100_20190928T151055_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_220190928T161719_20190928T162409_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_220190928T171215_20190928T172340_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_220190928T172344_20190928T173408_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_220190928T175733_20190928T181319_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T181939_20190928T183036_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_220190928T184719_20190928T190107_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_220190928T193935_20190928T194645_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_220190928T194808_20190928T201051_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190928T210208_20190928T210344_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_220190928T211644_20190928T215023_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_220190928T220632_20190928T223124_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_220190928T223801_20190928T224404_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_220190928T225827_20190928T232817_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_220190928T234527_20190929T000314_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

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

Number of	f products	with errors:	
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Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190928T010536_20190928T010609_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220190928T024144_20190928T024327_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220190928T053534_20190928T054840_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220190928T085103_20190928T091549_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220190928T210059_20190928T210208_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220190928T223127_20190928T223801_C001	Attitude correction missing	The attitude has not been corrected

6.6 L2 FDM Range Measurement Check

CryoSat L2 data includes a CFI (field 17) and OCOG (field 22) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set. Number of products with errors: 29

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190927T234719_20190928T001849_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_220190928T012607_20190928T015902_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_220190928T030247_20190928T033748_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_220190928T044116_20190928T045539_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_220190928T050512_20190928T051718_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_220190928T055054_20190928T061020_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_220190928T063015_20190928T064040_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_220190928T064220_20190928T065558_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_220190928T072015_20190928T072453_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_220190928T073119_20190928T073431_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_220190928T073554_20190928T074304_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_220190928T074426_20190928T074633_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_220190928T085103_20190928T091549_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_220190928T093744_20190928T094007_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_220190928T095019_20190928T101344_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_220190928T103002_20190928T110209_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_220190928T111747_20190928T112256_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_220190928T121054_20190928T124235_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_220190928T141306_20190928T142430_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_220190928T171215_20190928T172340_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_220190928T172344_20190928T173408_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_220190928T184719_20190928T190107_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_220190928T193935_20190928T194645_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_220190928T210208_20190928T210344_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_220190928T211644_20190928T215023_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_220190928T220632_20190928T223124_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_220190928T223801_20190928T224404_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_220190928T225827_20190928T232817_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_220190928T234527_20190929T000314_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

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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 o	f products	with	errors:	
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Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190927T234719_20190928T001849_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_220190928T012607_20190928T015902_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_220190928T030247_20190928T033748_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_220190928T044116_20190928T045539_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_220190928T050512_20190928T051718_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_220190928T055054_20190928T061020_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_220190928T063015_20190928T064040_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_220190928T064220_20190928T065558_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_220190928T072015_20190928T072453_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_220190928T073119_20190928T073431_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_220190928T073554_20190928T074304_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_220190928T074426_20190928T074633_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_220190928T085103_20190928T091549_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_220190928T093744_20190928T094007_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_220190928T095019_20190928T101344_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_220190928T103002_20190928T110209_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_220190928T111747_20190928T112256_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_220190928T121054_20190928T124235_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_220190928T141306_20190928T142430_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_220190928T171215_20190928T172340_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_220190928T172344_20190928T173408_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_220190928T184719_20190928T190107_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_220190928T193935_20190928T194645_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_220190928T210208_20190928T210344_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_220190928T211644_20190928T215023_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.

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.
CFI Backscatter Status Flag, SWH	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.
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.
CFI Backscatter Status Flag, SWH	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: 46

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190927T234719_20190928T001849_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_220190928T011121_20190928T011415_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_220190928T012607_20190928T015902_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T030247_20190928T033748_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
		Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T035535_20190928T042856_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T044116_20190928T045539_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T050021_20190928T050356_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_220190928T050512_20190928T051718_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_220190928T055054_20190928T061020_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_220190928T063015_20190928T064040_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_220190928T064220_20190928T065558_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_220190928T072015_20190928T072453_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_220190928T073119_20190928T073431_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_220190928T073554_20190928T074304_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T074426_20190928T074633_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS OFFL SIR FDM 2 20190928T081441 20190928T083435 C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS OFFL SIR FDM 2 20190928T085103 20190928T091549 C001		Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T093744_20190928T094007_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T095019_20190928T101344_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_220190928T103002_20190928T110209_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_220190928T111557_20190928T111630_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_220190928T111747_20190928T112256_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_220190928T112628_20190928T114636_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_220190928T121054_20190928T124235_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_220190928T134929_20190928T141020_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_220190928T141306_20190928T142430_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_220190928T145314_20190928T145912_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T152835_20190928T155425_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T155604_20190928T160429_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
		Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T162423_20190928T164845_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T171215_20190928T172340_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T172344_20190928T173408_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_220190928T175733_20190928T181319_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_220190928T184719_20190928T190107_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_220190928T190247_20190928T190553_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_220190928T193603_20190928T193812_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_220190928T193935_20190928T194645_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_220190928T194808_20190928T201051_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_20190928T202707_20190928T204946_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T210059_20190928T210208_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
		Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220190928T210208_20190928T210344_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records.

CS_OFFL_SIR_FDM_220190928T211644_20190928T215023_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_220190928T220632_20190928T223124_C001		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_220190928T223801_20190928T224404_C001		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_220190928T225827_20190928T232817_C001		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_220190928T234527_20190929T000314_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_	135	135	135	0	0
SIR1SAR_0_	134	100	100	0	0
SIR1SIN_0_	98	98	98	0	0
SIR_FDM_1B	135	134	135	0	0
SIR_FDM_2	134	134	134	0	0
7.1 QCC Errors					
lumber of QCC reports with er		0			

7.2 QCC Warnings	
Number of QCC reports with warnings	0
7.3 Missing QCC Reports	

Number of products with missing QCC reports: 104