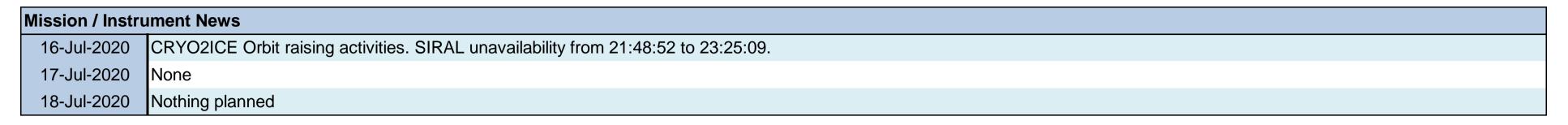
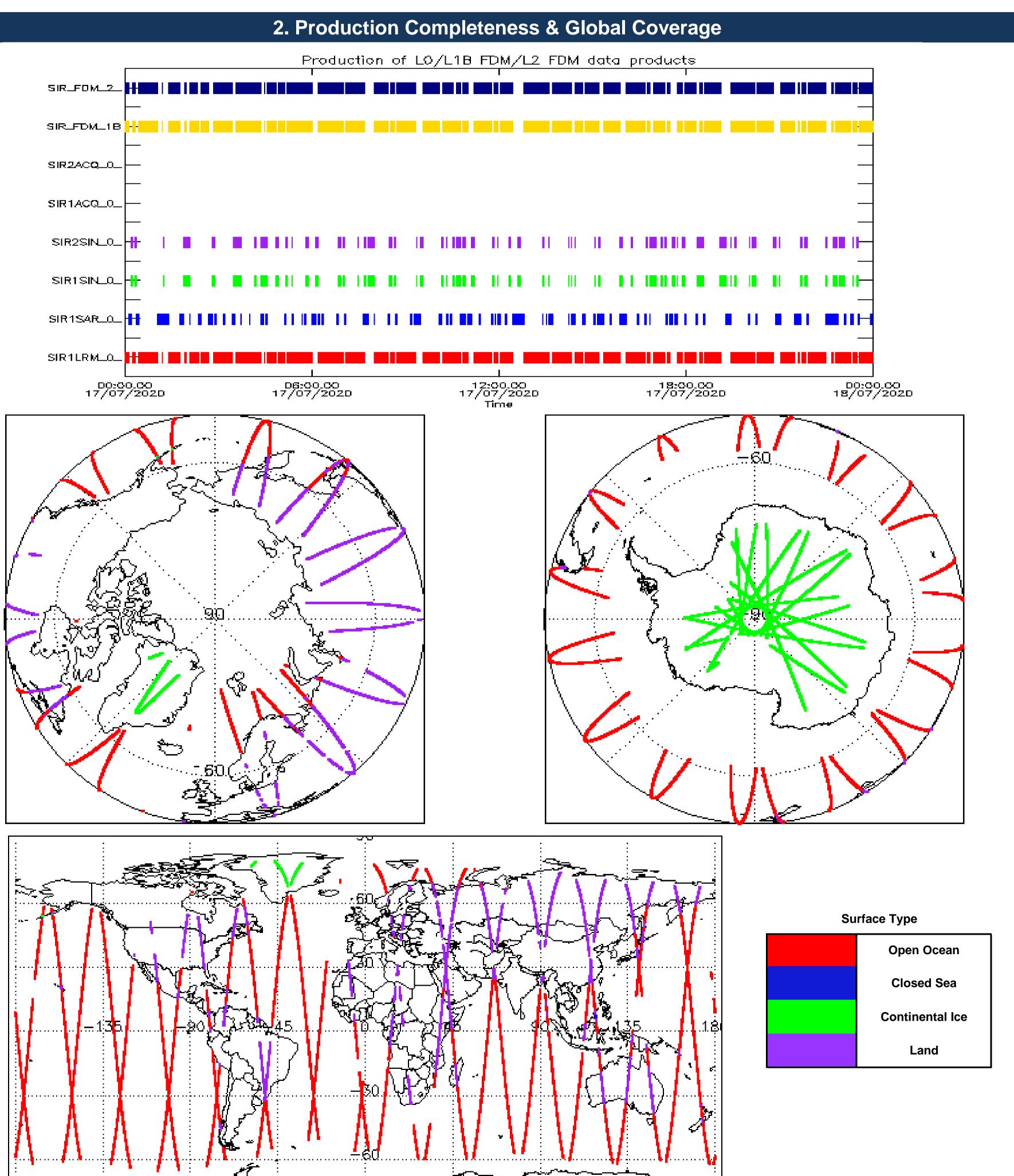


#### 1. Overview

Report Production Date:	20-Jul-2020
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM)  Mode and L0 Data

Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2, 5.2 and 6.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 6.4
Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8
QCC Error/ Warning Check	See Section 7.1 and 7.2





#### 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:** 

5

Product	Test Failed
CS_OPER_SIR1SAR_020200717T151452_20200717T152033_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020200717T201317_20200717T201549_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020200717T210054_20200717T210154_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200717T165129_20200717T165823_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020200717T190818_20200717T191537_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:

#### **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:

6

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200717T072950_20200717T073616_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200717T073616_20200717T073853_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200717T091154_20200717T091308_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200717T091308_20200717T091312_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200717T141520_20200717T141631_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20200717T141631_20200717T141831_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).

#### **5.3 L1B FDM Star Tracker Usage Check**

Each product is checked in order to ensure a valid star tracker file has been used in processing.

Number of products with errors:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20200717T072950_20200717T073616_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200717T091154_20200717T091308_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20200717T141520_20200717T141631_C001	No Star Tracker file used in the processing of this product

## 5.4 L1B FDM Calibration Usage Check

Each product is checked in order to ensure the necessary calibration files have been used in processing.

Number of products with errors:

## 5.5 L1B FDM Auxilary Data File Usage Check

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

Number of products with errors:

#### 5.6 L1B FDM Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag (field 54) for each measurement record. The bit value of this flag indicates any problems when set.

**Number of products with errors:** 

0

#### **5.7 L1B FDM Measurement Confidence Data Check**

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

5

**Number of products with errors:** 

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20200717T061448_20200717T062015_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_20200717T072950_20200717T073616_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200717T091154_20200717T091308_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200717T141520_20200717T141631_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20200717T160537_20200717T161028_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is

## 6. Level 2 FDM Data Quality Check

set, indicating a degraded echo

#### **6.1 L2 FDM Product Format Check**

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

**Number of products with errors:** 

#### **6.2 L2 FDM Product Header Analysis**

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

**Number of products with errors:** 

Product	Test Failed
CS_OFFL_SIR_FDM_220200717T072950_20200717T073616_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T073616_20200717T073853_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T091154_20200717T091308_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T091308_20200717T091312_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T141520_20200717T141631_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T141631_20200717T141831_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T175054_20200717T175146_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_220200717T211851_20200717T212336_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:** 

## **6.4 L2 FDM Auxiliary Correction Error Check**

Each product is checked to detect auxiliary corrections flagged by the ground-station processing chain as missing or containing errors.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200716T235131_20200717T000819_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_220200717T002534_20200717T010130_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_220200717T012309_20200717T014603_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_220200717T020518_20200717T022012_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_220200717T022636_20200717T023538_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_220200717T023620_20200717T024052_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_220200717T025402_20200717T031034_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_220200717T031248_20200717T032730_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_220200717T034405_20200717T035857_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_220200717T040058_20200717T041019_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_220200717T043447_20200717T044948_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_220200717T045449_20200717T050803_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_220200717T052400_20200717T054012_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_220200717T054118_20200717T054508_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_220200717T061147_20200717T061152_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_220200717T062151_20200717T064750_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T070356_20200717T072741_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_220200717T073616_20200717T073853_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_220200717T084221_20200717T090957_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_220200717T091608_20200717T091949_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_220200717T093225_20200717T100503_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_220200717T105019_20200717T105049_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_220200717T111127_20200717T112040_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_220200717T121347_20200717T121930_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_220200717T122548_20200717T122621_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T124812_20200717T132330_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_220200717T134239_20200717T141401_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_220200717T142642_20200717T144120_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_220200717T144600_20200717T144659_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T144710_20200717T150308_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_220200717T153700_20200717T155246_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_220200717T162800_20200717T164148_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_220200717T165824_20200717T165955_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_220200717T170215_20200717T171215_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_220200717T171500_20200717T172012_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_220200717T175859_20200717T182007_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T192513_20200717T192549_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_220200717T193536_20200717T195959_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T201549_20200717T204843_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220200717T210154_20200717T210834_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_220200717T211713_20200717T211849_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_220200717T212339_20200717T212956_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_220200717T213454_20200717T213921_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_220200717T215606_20200717T222827_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_220200717T224108_20200717T224234_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_220200717T230354_20200717T230541_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_220200717T230647_20200717T231723_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_220200717T233440_20200717T235600_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records

## 6.5 L2 FDM Measurement Confidence Data Check

5

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200717T061448_20200717T062015_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo
CS_OFFL_SIR_FDM_220200717T072950_20200717T073616_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200717T091154_20200717T091308_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200717T141520_20200717T141631_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220200717T160537_20200717T161028_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo

## 6.6 L2 FDM Range Measurement Check

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

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200717T002534_20200717T010130_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_220200717T020518_20200717T022012_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_220200717T022636_20200717T023538_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_220200717T023620_20200717T024052_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_220200717T025402_20200717T031034_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_220200717T034405_20200717T035857_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_220200717T040058_20200717T041019_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_220200717T043447_20200717T044948_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.

		The master fail flag is set by the CFI call, for one or more records,
CS_OFFL_SIR_FDM_220200717T054118_20200717T054508_C001	CFI Retracked Range Flag	indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220200717T061147_20200717T061152_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_220200717T070356_20200717T072741_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_220200717T073616_20200717T073853_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_220200717T084221_20200717T090957_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_220200717T091608_20200717T091949_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_220200717T093225_20200717T100503_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_220200717T105019_20200717T105049_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_220200717T111127_20200717T112040_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_220200717T121347_20200717T121930_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_220200717T124812_20200717T132330_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_220200717T142642_20200717T144120_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_220200717T144710_20200717T150308_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_220200717T153700_20200717T155246_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_220200717T170215_20200717T171215_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_220200717T171500_20200717T172012_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_220200717T192513_20200717T192549_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_220200717T210154_20200717T210834_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_220200717T211713_20200717T211849_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_220200717T212339_20200717T212956_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_220200717T215606_20200717T222827_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_220200717T230354_20200717T230541_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.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200717T002534_20200717T010130_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_220200717T020518_20200717T022012_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_220200717T022636_20200717T023538_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_220200717T023620_20200717T024052_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_220200717T025402_20200717T031034_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_220200717T034405_20200717T035857_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_220200717T040058_20200717T041019_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_220200717T043447_20200717T044948_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_220200717T054118_20200717T054508_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_2020071710988_20200171710989_20200717110989_20200717110999_202007171109	CS_OFFL_SIR_FDM_220200717T061147_20200717T061152_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.
CF DFL_SIR_FDM_2_20000717T04291_20000717T08935_C001  CR_OFFL_SIR_FDM_2_20000717T04291_20000717T08057_C001  CR_OFFL_SIR_FDM_2_20000717T04291_20000717T08057_C001  CR_OFFL_SIR_FDM_2_20000717T04291_20000717T080505_C001  CR_OFFL_SIR_FDM_2_20000717T04291_20000717T1080491_C001  CR_OFFL_SIR_FDM_2_20000717T040519_20000717T1080491_C001  CR_OFFL_SIR_FDM_2_20000717T105019_20000717T1080491_C001  CR_OFFL_SIR_FDM_2_20000717T105019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T105019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T105019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T105019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T104019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T104019_20000717T108049_C001  CR_OFFL_SIR_FDM_2_20000717T104019_20000717T10409_C001  CR_O	CS_OFFL_SIR_FDM_220200717T070356_20200717T072741_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20207177109102_20207177109198_C001  CS_OFFL_SIR_FDM_2_20200717709102_20207177109199_C001  CS_OFFL_SIR_FDM_2_20200717709102_2020717710909_C001  CS_OFFL_SIR_FDM_2_20200717710909_C001  CS_OFFL_SIR_FDM_2_20200717710909_C001  CS_OFFL_SIR_FDM_2_20200717710909_C001  CS_OFFL_SIR_FDM_2_20200717710909_C001  CS_OFFL_SIR_FDM_2_20200717710909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177110909_C001  CS_OFFL_SIR_FDM_2_202007177124812_202007177129309_C001  CS_OFFL_SIR_FDM_2_202007177124812_202007177129309_C001  CS_OFFL_SIR_FDM_2_202007177124812_202007177132309_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177150908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142842_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142843_202007177130908_C001  CS_OFFL_SIR_FDM_2_202007177142849_C0001  CS_OFFL_SIR_FDM_2_202007177142849_C0001  CS_OFFL_SIR_FDM_2_202007177142849_C0001  CS_OFFL_SIR_FDM_2_2020071771291849_C001  CS_OFFL_SIR_FDM_2_2020071771291849_C001  CS_OFFL_SIR_FDM_2_2020071771291849_C001  CS_OFFL_SIR_FDM_2_2020071771291849_C001  CS_OFFL_SIR_FDM_2_2020071771291849_C001  CS_OFFL_SIR_FDM_2_2020071771291849	CS_OFFL_SIR_FDM_220200717T073616_20200717T073853_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
SOFFL SIR FDM 2 20200717T1091609_20200717T1091940_CO01  CF Backscatter Status Flag, SWH Squared Averaging Status Flag SWH Squared Averaging St	CS_OFFL_SIR_FDM_220200717T084221_20200717T090957_C001	•	indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T105019_20200717T105049_C001  CS_OFFL_SIR_FDM_2_20200717T105019_20200717T105049_C001  CS_OFFL_SIR_FDM_2_20200717T1127_20200717T112040_C001  CS_OFFL_SIR_FDM_2_20200717T1127_20200717T112040_C001  CS_OFFL_SIR_FDM_2_20200717T1127_20200717T112040_C001  CS_OFFL_SIR_FDM_2_20200717T1127_20200717T12040_C001  CS_OFFL_SIR_FDM_2_20200717T12147_20200717T12930_C001  CS_OFFL_SIR_FDM_2_20200717T12447_20200717T133330_C001  CS_OFFL_SIR_FDM_2_20200717T12447_20200717T133330_C001  CS_OFFL_SIR_FDM_2_20200717T124412_20200717T133330_C001  CS_OFFL_SIR_FDM_2_20200717T124412_20200717T133330_C001  CS_OFFL_SIR_FDM_2_20200717T124412_20200717T133330_C001  CS_OFFL_SIR_FDM_2_20200717T124412_20200717T14240_C001  CS_OFFL_SIR_FDM_2_20200717T124412_20200717T14240_C001  CS_OFFL_SIR_FDM_2_20200717T142412_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T142412_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T1500_20200717T120308_C001  CS_OFFL_SIR_FDM_2_20200717T1500_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T1500_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T17100_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T17100_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T17100_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T17100_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T12016_20200717T12016_C001  CS_OFFL_SIR_FDM_2_20200717T12016_20	CS_OFFL_SIR_FDM_220200717T091608_20200717T091949_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T19519_20200717T19504_C001  CS_OFFL_SIR_FDM_2_20200717T191127_20200717T119330_C001  CS_OFFL_SIR_FDM_2_20200717T121347_20200717T121930_C001  CS_OFFL_SIR_FDM_2_20200717T121347_20200717T121930_C001  CS_OFFL_SIR_FDM_2_20200717T121347_20200717T121930_C001  CS_OFFL_SIR_FDM_2_20200717T124812_20200717T132330_C001  CS_OFFL_SIR_FDM_2_20200717T124812_20200717T132330_C001  CS_OFFL_SIR_FDM_2_20200717T142812_20200717T132330_C001  CS_OFFL_SIR_FDM_2_20200717T142812_20200717T144120_C001  CS_OFFL_SIR_FDM_2_20200717T142812_20200717T144120_C001  CS_OFFL_SIR_FDM_2_20200717T142812_20200717T150008_C001  CS_OFFL_SIR_FDM_2_20200717T150008_C001  CS_OFFL_SIR_FDM_2_20200717T15008_C0001  CS_OFFL_SIR_FDM_2_20200717T15008_C00017T1195048_C001  CS_OFFL_SIR_FDM_2_20200717T1715008_C00017TT195048_C001  CS_OFFL_SIR_FDM_2_20200717T1715008_C00017TT195048_C001  CS_OFFL_SIR_FDM_2_20200717T1710015_C001  CS_OFFL_SIR_FDM_2_20200717T1710015_C001  CS_OFFL_SIR_FDM_2_20200717T1710015_C001  CS_OFFL_SIR_FDM_2_20200717T1710004_C001  CS_OFFL_SIR_FDM_2_20200717T1710004_C001  CS_OFFL_SIR_FDM_2_20200717T1710004_C001  CS_OFFL_SIR_FDM_2_20200717T1210004_C001  CS_OFF	CS_OFFL_SIR_FDM_220200717T093225_20200717T100503_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
S. OFFL SIR FDM 2 20200717T121347 20200717T121330 C001  CS OFFL SIR FDM 2 20200717T124812 20200717T132330 C001  CS OFFL SIR FDM 2 20200717T124812 20200717T132330 C001  CS OFFL SIR FDM 2 20200717T124812 20200717T132330 C001  CS OFFL SIR FDM 2 20200717T142612 20200717T132330 C001  CS OFFL SIR FDM 2 20200717T142612 20200717T132330 C001  CS OFFL SIR FDM 2 20200717T142612 20200717T142612 C0001  CS OFFL SIR FDM 2 20200717T142612 20200717T142612 C0001  CS OFFL SIR FDM 2 20200717T142612 20200717T155308 C001  CS OFFL SIR FDM 2 20200717T142700 20200717T155246 C001  CS OFFL SIR FDM 2 20200717T175270 20200717T171215 C001  CS OFFL SIR FDM 2 20200717T17520200717T171215 C001  CS OFFL SIR FDM 2 20200717T175200 20200717T171215 C001  CS OFFL SIR FDM 2 20200717T175202000717T171215 C001  CS OFFL SIR FDM 2 20200717T175202000717T171215 C001  CS OFFL SIR FDM 2 20200717T175250 20200717T171215 C001  CS OFFL SIR FDM 2 20200717T179215 20200717T171215 C001  CS OFFL SIR FDM 2 20200717T1792513 20200717T17212 C001  CS OFFL SIR FDM 2 20200717T192513 20200717T12012 C001  CS OFFL SIR FDM 2 20200717T12013 C000  CS OFFL SIR FDM 2 20200717T120513 C000717T21054 C001  CS OFFL SIR FDM 2 20200717T120513 C000717T21054 C001  CS OFFL SIR FDM 2 20200717T120513 C000717T21054 C001  CS OFFL SIR FDM 2 20200717T21054 C001  CS OFFL SIR FDM 2 20200717T210054 C001  CS OFFL SIR FDM 2 20200717T21054 C001  CS OFFL SIR FD	CS_OFFL_SIR_FDM_220200717T105019_20200717T105049_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T121330_C001  CS_OFFL_SIR_FDM_2_20200717T124812_20200717T132330_C001  CS_OFFL_SIR_FDM_2_20200717T144212_20200717T144120_C001  CS_OFFL_SIR_FDM_2_20200717T144210_20200717T144120_C001  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T150300_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T1500_20200717T171215_C001  CS_OFFL_SIR_FDM_2_20200717T17000_20200717T1712012_C001  CS_OFFL_SIR_FDM_2_20200717T17100_20200717T1712012_C001  CS_OFFL_SIR_FDM_2_20200717T1712013_20200717T172013_C001  CS_OFFL_SIR_FDM_2_20200717T1712013_20200717T172013_C001  CS_OFFL_SIR_FDM_2_20200717T1712013_20200717T172013_C001  CS_OFFL_SIR_FDM_2_20200717T1712013_20200717T120034_C001  CS_OFFL_SIR_FDM_2_20200717T120034_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CS_OFFL_SIR_FDM_2_20200717T1210634_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatte	CS_OFFL_SIR_FDM_220200717T111127_20200717T112040_C001	•	indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T142812_20200717T14212_CO01  CS_OFFL_SIR_FDM_2_20200717T142642_20200717T144120_CO01  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_CO01  CS_OFFL_SIR_FDM_2_20200717T14710_20200717T15546_CO01  CS_OFFL_SIR_FDM_2_20200717T153700_20200717T15546_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T17155_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T1715_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T1712015_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T1712015_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T17170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T17170215_20200717T170215_CO01  CS_OFFL_SIR_FDM_2_20200717T1702015_20200717T170201  CS_OFFL_SIR_FDM_2_20200717T1702015_20200717T102015_2000717T102015_2000717T102015_2000717T100015_20000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_2000717T100015_20000	CS_OFFL_SIR_FDM_220200717T121347_20200717T121930_C001	<u> </u>	indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T142642_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_C001  CS_OFFL_SIR_FDM_2_20200717T153700_20200717T155246_C001  CS_OFFL_SIR_FDM_2_20200717T153700_20200717T155246_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag SWH	CS_OFFL_SIR_FDM_220200717T124812_20200717T132330_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T144710_20200717T150308_CO01  CS_OFFL_SIR_FDM_2_20200717T153700_20200717T155246_CO01  CS_OFFL_SIR_FDM_2_20200717T153700_20200717T155246_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T17155246_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T171215_CO01  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T171215_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T192513_20200717T192549_CO01  CS_OFFL_SIR_FDM_2_20200717T192513_20200717T192549_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T210834_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T210834_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T210834_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T21086_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T21086_CO01  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T21086_CO01  CS_OFFL_SIR_FDM_2_20200717T210566_20200717T212887_CO01  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212887_CO01  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212866_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T210566_20200717T212866_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T21173_20200717T212866_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212867_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212867_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212866_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212866_CO01  CFI Backscatter Status Flag. SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T222827_CO01  CFI Ba	CS_OFFL_SIR_FDM_220200717T142642_20200717T144120_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T153700_20200717T155246_C001  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T171215_C001  CS_OFFL_SIR_FDM_2_20200717T170215_20200717T171215_C001  CS_OFFL_SIR_FDM_2_20200717T171500_20200717T172012_C001  CS_OFFL_SIR_FDM_2_20200717T171500_20200717T172012_C001  CS_OFFL_SIR_FDM_2_20200717T171500_20200717T192549_C001  CS_OFFL_SIR_FDM_2_20200717T192513_20200717T192549_C001  CS_OFFL_SIR_FDM_2_20200717T1210154_20200717T1210834_C001  CS_OFFL_SIR_FDM_2_20200717T210154_20200717T210834_C001  CS_OFFL_SIR_FDM_2_20200717T210154_20200717T210834_C001  CS_OFFL_SIR_FDM_2_20200717T2105606_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T213339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T2200541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T2305541_C001  CS_O	CS_OFFL_SIR_FDM_220200717T144710_20200717T150308_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T170215_20200717T171215_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  CS_OFFL_SIR_FDM_2_20200717T192513_20200717T192549_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag ignored for these records.  CS_OFFL_SIR_FDM_2_20200717T21054_20200717T210834_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.  The master fai	CS_OFFL_SIR_FDM_220200717T153700_20200717T155246_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T171500_20200717T172012_C001  CS_OFFL_SIR_FDM_2_20200717T192513_20200717T192549_C001  CS_OFFL_SIR_FDM_2_20200717T210154_20200717T210834_C001  CS_OFFL_SIR_FDM_2_20200717T210154_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T2230541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T230541_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T2153054_20200717T2230541_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag	CS_OFFL_SIR_FDM_220200717T170215_20200717T171215_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T192513_20200717T210834_C001  CS_OFFL_SIR_FDM_2_20200717T210154_20200717T210834_C001  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T2128227_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T220541_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T230541_C001  CS_OFFL_SIR_FDM_2_20200717T23	CS_OFFL_SIR_FDM_220200717T171500_20200717T172012_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T210154_20200717T210834_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T230541_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter	CS_OFFL_SIR_FDM_220200717T192513_20200717T192549_C001	•	indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T211713_20200717T211849_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T212827_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Fla	CS_OFFL_SIR_FDM_220200717T210154_20200717T210834_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T212339_20200717T212956_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CS_OFFL_SIR_FDM_2_20200717T230354_20200717T230541_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter	CS_OFFL_SIR_FDM_220200717T211713_20200717T211849_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_2_20200717T215606_20200717T222827_C001  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  CFI Backscatter Status Flag, SWH Squared Averaging Status Flag  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, SWH Squared Averaging Status Flag.	CS_OFFL_SIR_FDM_220200717T212339_20200717T212956_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
CS_OFFL_SIR_FDM_220200717T230354_20200717T230541_C001   CFI Backscatter Status Flag, SWH   Indicating the values stored in fields #41, #42, #43 and #44 should be	CS_OFFL_SIR_FDM_220200717T215606_20200717T222827_C001		indicating the values stored in fields #41, #42, #43 and #44 should be
	CS_OFFL_SIR_FDM_220200717T230354_20200717T230541_C001		indicating the values stored in fields #41, #42, #43 and #44 should be

# 6.8 L2 FDM Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag (field 66) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220200717T002534_20200717T010130_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_220200717T012309_20200717T014603_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_220200717T020518_20200717T022012_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_220200717T022636_20200717T023538_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_220200717T023620_20200717T024052_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_220200717T025402_20200717T031034_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_220200717T031248_20200717T032730_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_220200717T034405_20200717T035857_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_220200717T040058_20200717T041019_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_220200717T043447_20200717T044948_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_220200717T045449_20200717T050803_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_220200717T054118_20200717T054508_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_220200717T061147_20200717T061152_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_220200717T062151_20200717T064750_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_220200717T070356_20200717T072741_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_220200717T073616_20200717T073853_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_220200717T080036_20200717T082608_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean
CS_OFFL_SIR_FDM_220200717T084221_20200717T090957_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_220200717T091608_20200717T091949_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_220200717T093225_20200717T100503_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_220200717T105019_20200717T105049_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_220200717T111127_20200717T112040_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_220200717T112325_20200717T114438_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_220200717T120207_20200717T121200_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_220200717T121347_20200717T121930_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_220200717T124812_20200717T132330_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_220200717T134239_20200717T141401_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_220200717T142642_20200717T144120_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_220200717T144600_20200717T144659_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_220200717T144710_20200717T150308_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_220200717T152033_20200717T153420_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
	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_220200717T153700_20200717T155246_C001		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_220200717T161602_20200717T162449_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_220200717T162451_20200717T162620_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_220200717T162800_20200717T164148_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_220200717T165824_20200717T165955_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_220200717T170215_20200717T171215_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_220200717T171500_20200717T172012_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_220200717T175859_20200717T182007_C001	Ocean Retracking Quality Flag	Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_220200717T183617_20200717T190407_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_220200717T192513_20200717T192549_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_220200717T193536_20200717T195959_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_220200717T201549_20200717T204843_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_220200717T210154_20200717T210834_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_220200717T211713_20200717T211849_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_220200717T212339_20200717T212956_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_220200717T215606_20200717T222827_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_220200717T224108_20200717T224234_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_220200717T230354_20200717T230541_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_220200717T233440_20200717T235600_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.

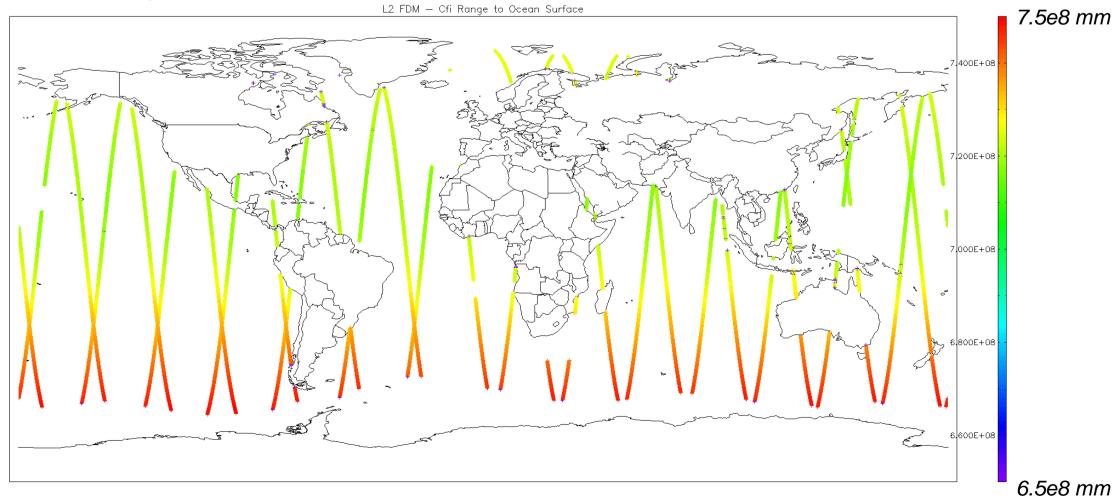
# 6.9 L2 Parameters Check

The following section provides plots and statistics of some key science parameters extracted from the L2 products.

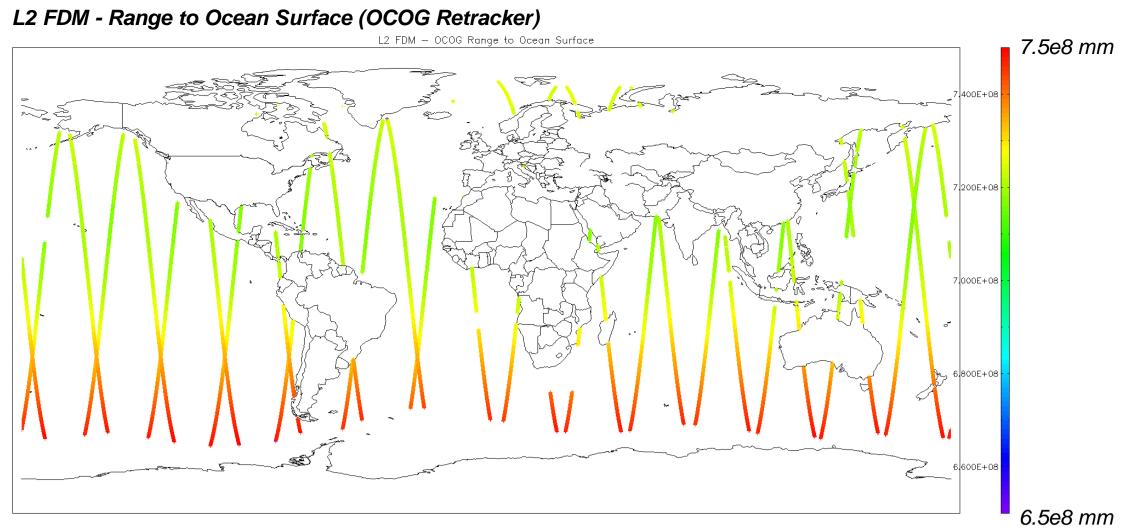
#### Range to Ocean Surface (1 Hz)

L2 FDM - Range to Ocean Surface (CFI Retracker)

L2 FDM - Cfi Range to Ocean Surface

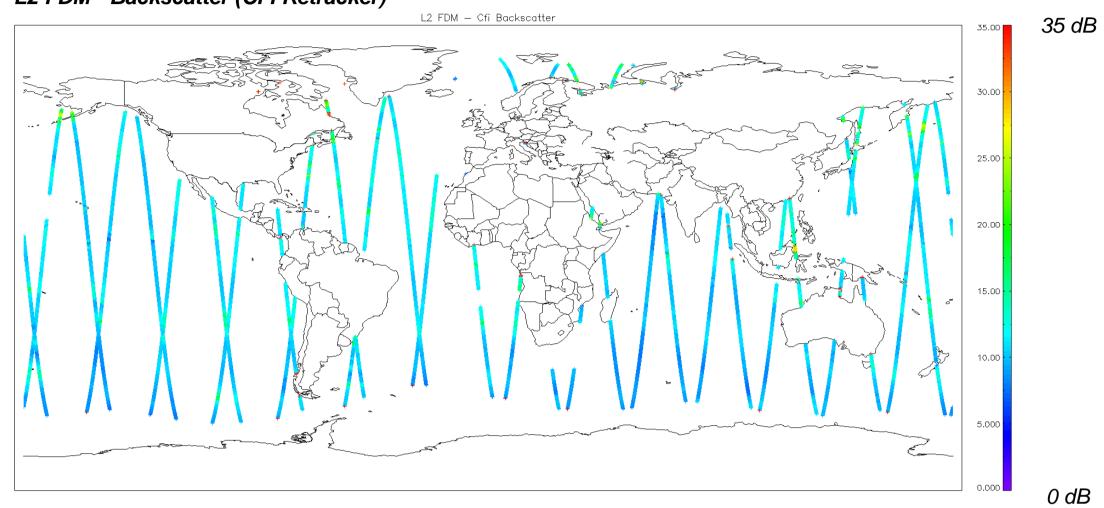


Parameter	mean (km)	st dev.(km)
Range CFI (1 Hz)	726.82	41.06
Range OCOG (1 Hz)	728.93	12.33



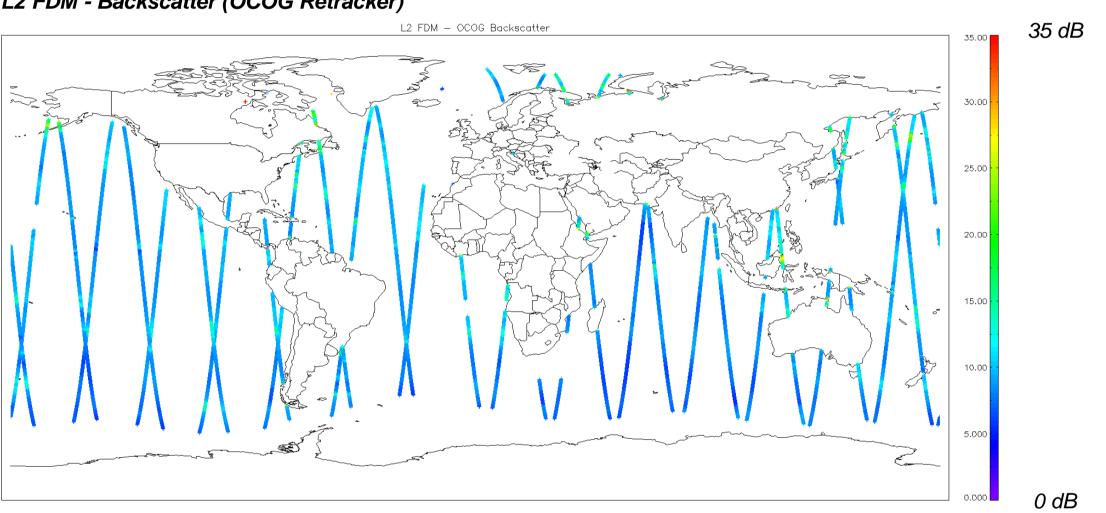
#### Backscatter (1 Hz)

#### L2 FDM - Backscatter (CFI Retracker)



Parameter	mean (dB)	st dev.(dB)
Backscatter CFI (1 Hz)	11.41	17.48
Backscatter OCOG (1 Hz)	8.76	3.49

#### L2 FDM - Backscatter (OCOG Retracker)



# 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_	145	145	145	0	0
SIR1SAR_0_	106	106	106	0	0
SIR1SIN_0_	103	103	103	0	0
SIR2SIN_0_	106	106	106	0	0
SIR_FDM_1B	145	145	3	0	142
SIR FDM 2	142	142	85	57	0

#### 7.1 QCC Errors

Number of QCC reports with errors:

Number of QCC	reports with e	rrors:	142								
					Total number	of occurrences	of each error				
<b>Product Type</b>	UVOB	-	-	-	-	-	-	-	-	-	-
SIR FDM 1B	142										

Test Description Key:					
<b>Abbrev</b>	viation	Test name	Details		
UVOB		UnitVectorOrBlank_6	The three array elements should form a unit vector (using a scale factor of 10^-6)		

## 7.2 QCC Warnings

**Number of QCC reports with warnings** 

213

Total number	of occurrences	of each warning
		_

						n occurrences e	n cacii waiiiiig				
<b>Product Type</b>	MVSIO	MVSIOFD	RAGCOFOFD	RBSZO	RBSZOFD	RSSBCO	-	-	-	-	-
SIR_FDM_1B	0	0	1	0	0	0					
SIR_FDM_2_	47.00	52.00	0.00	40.00	53.00	20.00					

Test Description Key:		
Abbreviation	Test name	Details
MVSIO	MissingValueShortIntOcean	The value should not be a 'missing value' for surface type 0 only
MVSIOFD	MissingValueShortIntOceanFD2	The value should not be a 'missing value' for surface type 0 only
RAGCOFOFD	RangeAGCOrFlaggedOceanFD3	The AGC should be between 0 and 6200 or the AGC_Inconsistency flag should be set for surface type = ocean
RBSZO	RangeBackscatterSigmaZeroOcean	The backscatter sigma zero should be between 700 and 3000 (or missing) for surface type = ocean
RBSZOFD	RangeBackscatterSigmaZeroOceanFD2	The backscatter sigma zero should be between 700 and 3000 (or missing) for surface type = ocean
RSSBCO	RangeSeaStateBiasCorrectionOcean	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean

## 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0